POTENTIAL PCB SOURCES TO PRSA

VOLUME I OF IV

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POTENTIAL PCB SOURCES TO THE PRSA

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Introduction and Instructions

Introduction

This document is submitted to the United States Environmental Protection Agency, Region II ("USEPA") by Chemical Land Holdings, Inc. ("CLH"), performing on behalf of Occidental Chemical Corporation ("OCC," the successor to Diamond Shamrock Chemicals Company, f/k/a Diamond Alkali Company) under Administrative Order on Consent, Index No. II-CERCLA-0117 (the "AOC") effective April 20, 1994, and providing for the conduct of a Remedial Investigation and Feasibility Study ("RI/FS") of the Passaic River Study Area ("PRSA"). Notwithstanding that there are, in the PRSA, numerous contaminants of concern which have come from numerous sources, both historically, as well as some which continue today, OCC is the sole PRP performing the required RI/FS work.

CLH has been assisting USEPA to gather and organize evidence of liability under Section 107 of CERCLA of various entities ("Candidate PRPs") whose hazardous substances and wastes have contaminated the sediments of the PRSA, whether through: (i) direct or indirect discharges of hazardous substances or wastes generated or used by Candidate PRPs in their operations or on their properties, (ii) arrangement by Candidate PRPs for the disposal of hazardous substances or wastes into the PRSA or in a manner that reasonably should have been foreseen to impact the PRSA, and/or (iii) transport by Candidate PRPs (who also selected the PRSA as the disposal location) of hazardous substances or wastes which have impacted the PRSA. In February, 2001, CLH presented to USEPA evidentiary materials on nineteen (19) Candidate PRPs for which the evidence indicates hazardous substances clearly associated with their respective properties and operations, clear pathways for such hazardous substances to be discharged to the PRSA, and clear detections of significant amounts of said hazardous substances in the PRSA sediments near the discharge locations.

This document focuses on additional Candidate PRPs, associated with **PCB – contamination** of PRSA sediments. In the United States, PCBs were produced as complex mixtures of various PCB "congeners" and often referred to by trade names such as "Aroclor" and a numeric designation, for example, "Aroclor 1260." PCBs have been used in many ways for many decades until more stringently regulated beginning in the 1970s. For example, PCBs were used as the dielectric fluid in almost all alternating current capacitors manufactured in the United States since the mid-1930s; and sealants, coatings, and dust control agents made from waste oil are often contaminated with PCBs.

Fishing bans instituted in 1982 prohibit the consumption of seafood in Newark Bay and its tidal tributaries due to the health hazards posed by PCB-contaminated fish and shellfish. The Passaic River, a tributary to Newark Bay, contains elevated PCB concentrations in surface sediments. Ongoing PCB discharges are occurring in the lower Passaic River, as evidenced by the localization of elevated PCB concentrations in surface sediments near known PCB contaminated sites. Several industrial sites with PCB

contamination in soils and/or groundwater have been identified in upstream reaches of the Passaic River, below the Dundee Dam, as well as in the lower reach of the river.

There is no doubt that the presence of PCBs in sediments of the PRSA will be a significant factor in making decisions regarding remedial alternatives as to the PRSA. It is intended that USEPA utilize this report as a basis to issue formal notice letters to some candidate PRPs that USEPA considers them to be responsible for hazardous substances (specifically PCBs) of concern in the sediments of the PRSA. For other candidate PRPs, this report should, at a minimum, provide a sound basis for further investigation by USEPA, leading to additional formal notice letters.

Instructions

This report, Summary of Findings On Potential PCB Sources To The Passaic River Study Area, is organized to present specific evidence compiled on certain Potentially Responsible Parties ("PRPs") in the PRSA. The contents of this report are organized in four binders. Included are: an overall evidence summary chart, associated figures of the PRSA, individual PRP case summaries, and tabbed sections containing copies of regulatory and other open source documentation that comprises the evidence associating each PRP with polychlorinated biphenyls ("PCBs"). It is intended that the reader review the figures, case summaries and evidence summary chart, and then refer to the tabbed sections to review the detailed evidence compiled and presented for each PRP of interest.

The evidence summary chart, associated figures, PRP case summaries, and PCB documentation are all arranged in a geographical progression, organized to read as if traveling from south to north in the PRSA. All information in this report is grouped by river "reach," from south to north, starting as follows: (1) Point No Point Reach; (2) Harrison Reach; (3) Newark Reach; (4) Kearny Reach; and (5) Arlington Reach. The information is organized to present evidence compiled on PRPs in each reach – starting with the southern-most PRP in a reach and then traveling northward to present information on all PRPs in that reach.

The **evidence summary chart**, entitled Summary of Potential PCB Sources To PRSA, is contained in Binder Number 1 of this report. The chart is also arranged by PRP and reach-by-reach, from south to north in the PRSA. The evidence summary chart indicates each PRP, its location, whether that PRP is known to have any type of PCB contaminated on-site media and whether that PRP is known to have stored, used and/or disposed of PCB containing materials. The evidence summary chart further indicates the specific type of PCB substance identified to have been stored, used, disposed, or to have contaminated the PRP location. The specific PCB substance groupings shown in the chart are Aroclor 1242, Aroclor 1248, Aroclor 1254, Aroclor 1260, Other Aroclors and finally, Unidentified Aroclors. As appropriate, references on the sources of information utilized to compile the evidence summary chart are noted for each PRP on the chart.

The **figures** - also contained in Binder Number 1 - serve to graphically represent the PRP sites in relation to the Passaic River. The figures also are organized reach-by-

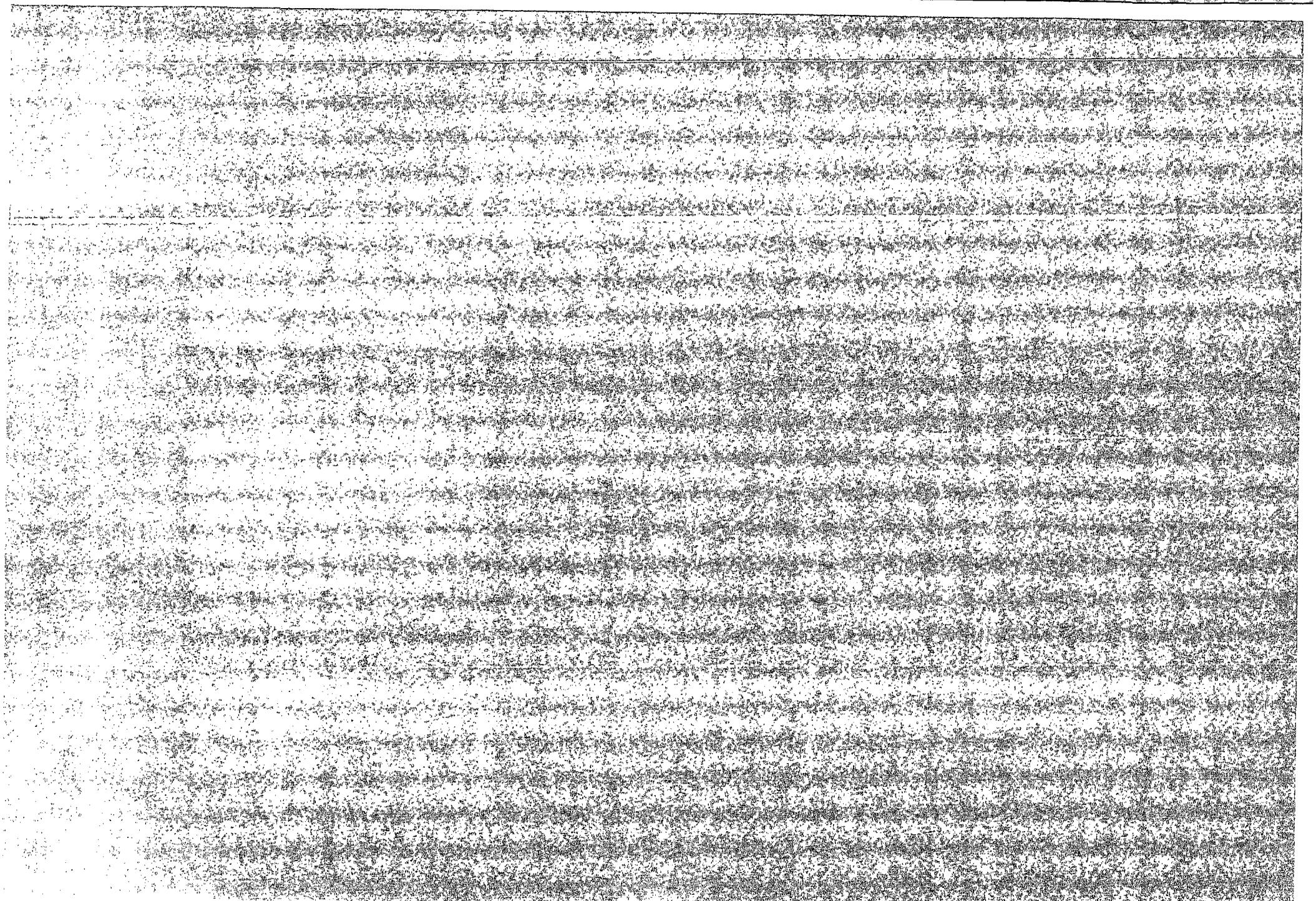
reach, from south to north in the PRSA. The figures indicate the PRP sites, their known discharge mechanisms to the PRSA, as well as the data compiled on PCB contamination found in the PRSA sediments located adjacent to the PRP sites.

The PCB Aroclor and PCB Congener data obtained from sampling of the sediments of the PRSA, and previously provided to the USEPA, is represented on the figures as various colored points in the PRSA. The colored points represent different levels of PCB contamination found in the core sampling locations throughout the PRSA. Detailed listings of the specific PCB Aroclor and PCB Congener contaminant levels for each core are presented for review as data boxes on each figure.

Case summaries on specific PRPs are also presented with the figures. It should be noted that not all PRPs that are PCB sources in the PRSA are represented on the figures and the associated case summaries. Only those PRPs with a significant body of evidence compiled to-date from prior investigation are noted on the figures and associated case summaries.

The bulk of this report is comprised of **specific evidence of PCB association** that has been compiled to-date on each of the subject PRPs. The evidence is arranged in individually numbered, tabbed sections for each PRP and, again, is organized reach-by-reach, from south to north in the PRSA. Two indexes that cross-reference the name of each PRP to the number of its tabbed section are provided in Binder Number 1 of this report. One index of PRPs is arranged in an alphabetical order, while the second index is arranged geographically, again reach-by-reach from south to north.

It should be noted that the evidentiary materials have been compiled from various publicly available information sources. These open sources include, but are not limited to, the USEPA, the New Jersey Department of Environmental Protection, historical sales records of the Monsanto Chemical Company, as well as records obtained from various online database information services.



Summary Chart

Reference Source Codes

B(P)	BRS Record for PCBs
104e	PRP response under CERCLA 104e
EXEC	PRP Executive Summary Charts
SSR	1992 NJDEP Site Remediation Site Status Report
NPL	EPA National Priorities List
CDC	Center for Disease Control

SUMMARY OF
POTENTIAL PCB SOURCES TO PRSA
(As of December 18, 2001)

TAB NO.	NAME	STREET	TOWN	ZIP CODE	SITE CONTAM.	USER, STORER OR DISPOSER	1242	1248	1254	1260
			POINT NO POINT REACH							
1	Scientific Chemical Processing, Inc.	411 Wilson Ave.	Newark	07105	X					
2	Celanese Chem. Co. Inc.	354 Doremus Ave.	Newark	07105	X			S-9.2 ppm	S-2.1 ppm	X
3	Elan Chemical Co., Incorporated	268 Doremus Avenue	Newark	07105		X	X	X		
4	Union Carbide	360 Avenue P	Newark	07105	X				1.8 ppm	
5	Avenue P Landfill -Newark Redevelopment & Housing Authority-A. Giordano & Sons-American Cyanamid-Revere Smelting & Refining/ Revere Urban Renewal	357-405 Avenue P	Newark	07105	X					S-5ppm
6	Castrol Oils	254-266 Doremus Ave	Newark	07105		X				
7	D & J Trucking	310-336 Avenue P	Newark	07105	X				X	X
8	Newark Police Shooting Range	294 Avenue P	Newark	07105	X					
9	DuPont/Pitt-Consol/Conoco/Reilly Tar	191 Doremus Avenue	Newark	07105		X	P	P		
29	Alliance Chemical Company	33 Avenue P	Newark	07105	X				S-4900 ppb	
30	Sun Chemical Corp	185 Foundry St.	Newark	07105	X	X	X	X		
10	Ashland Chemical	221 Foundry Street	Newark	07105	X					

S = Soil
GW = Groundwater
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SD = Sediment in Sewers
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TAB NO.	NAME	OTHER AROCLORS	UNIDENTIFIED AROCLORS	REFERENCES & NOTES
				POINT NO POINT REACH
1	Scientific Chemical Processing, Inc.		X	SSR, PCBs in soils, Liquid Hazardous Waste.
2	Celanese Chem. Co. Inc.	S-1221 15 ppm	S-54 ppm	104e, PADS Database.
3	Elan Chemical Co., Incorporated			Monsanto Sales, 104e.
4	Union Carbide			On-site transformer area. Creek Sediment PCB contamination, PRP for Avenue P landfill.
5	Avenue P Landfill -Newark Redevelopment & Housing Authority-A. Giordano & Sons-American Cyanamid-Revere Smelting & Refining/ Revere Urban Renewal			Regulatory Files, Oct. 1986 sampling.
6	Castrol Oils	P 5460		Monsanto Sales.
7	D & J Trucking			Creek Sediment PCB contamination, PRP for Avenue P landfill.
8	Newark Police Shooting Range			Regulatory Files, Soil Contamination.
9	DuPont/Pitt-Consol/Conoco/Reilly Tar		500 ppm in tanks, 1600 ppm in solid & hazardous waste.	Monsanto Sales for Pitt-Consol, PCBs in site wastes, Therminol FR-1 and FR-2, 104e.
29	Alliance Chemical Company	1246 - 16,000 ppb		104e , Creek Sediment PCB contamination, PRP for Avenue P landfill.
30	Sun Chemical Corp	S- 160,000 ppm Total PCB		104e , Creek Sediment PCB contamination, PRP for Avenue P landfill.
10	Ashland Chemical		X	104e, Used/manufactured plasticizers.

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11	Foundry Street Complex/Avon Drum/CWC/Arkansas Chem., Automatic Electroplating, etc.	185 Foundry Street	Newark	07105	X	X		SD-3000ppm		
12	Lucent/Western Electric (AT&T)	100 Central Avenue	Kearny	07032	X					
13	Texaco Refining & Marketing	86 Doremus Avenue	Newark	07105	X					
77	Chemical Leaman Tank Lines	80 Doremus Avenue	Newark	07105	X			S- .892 ppm		S-3.55 ppm
14	Bayonne Barrel & Drum Company	154 Raymond Boulevard	Newark	07105	X			S- 3400 ppm	S- 4300 ppm	
78	Landfill 15E	Foundry Street	Newark	07105	X				S-18	S- 23
15	Syncon Resins	77 Jacobus Avenue	Kearny	07032	X			SD-1200	SD - 410	S- 31 ppm
16	PSE&G Essex Gen. Station	155 Raymond Blvd.	Newark	07105		X				
17	Spectraserv, Inc.	75 Jacobus Avenue	Kearny	07032	X	X				
18	PSE&G Kearny Generating Station	Foot of Hackensack Ave.	Kearny	07032		X				
19	BASF Corp. Chemical Div.	50 Central Ave.	Kearny	07032	X		GW-28.8 ppb	X	X	S-9,010 ppb
20	Monsanto	Foot of Pennsylvania Avenue	Kearny	07032	X			S-63,000		S-20,000
84	Whittaker Clark & Daniels	1 Jacobus Avenue	Kearny	07105						
23	Otillio Landfill	18-60 Blanchard Street	Newark	07105	X			S- 4.03 ppm	S-2.5 ppm	SD- 1.4 ppm

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TAB NO.	NAME	OTHER AROCLORS	UNIDENTIFIED AROCLORS	REFERENCES & NOTES
11	Foundry Street Complex/Avon Drum/CWC/Arkansas Chem., Automatic Electroplating, etc.			Regulatory Files, Site Contamination - PCBs detected in soils, GW, sewer sediments.
12	Lucent/Western Electric (AT&T)		S-89,000 ppm Total PCBs	104e, Site soil contamination, SSR.
13	Texaco Refining & Marketing		X	B(P), Soil clean up.
77	Chemical Leaman Tank Lines			Regulatory Files.
14	Bayonne Barrel & Drum Company		SD - 80 ppm (total PCB)	Regulatory Files, PCBs in site soil.
78	Landfill 15E			Regulatory Files.
15	Syncon Resins		X	SSR, B(P), Sludge/Solids, Site soil contamination.
16	PSE&G Essex Gen. Station		X	B(P), PCBs used in transformers.
17	Spectraserv, Inc.		S-52 ppm	Regulatory Files.
18	PSE&G Kearny Generating Station		X	B(P).
19	BASF Corp. Chemical Div.	1016, 1221, 1232		104e, PCBs in site soils and groundwater.
20	Monsanto		S-400,000 ppm Total PCBs	104e, B(P), SSR, PADS, Site soils, 1248, 1254, 1260.
84	Whittaker Clark & Daniels			Regulatory Files.
23	Otillio Landfill		X	Regulatory Files, PCBs in soils.

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			HARRISON REACH							
22	Route 508 Expansion	Rt. 508 & NJ Tnpk. Exit 15W	Kearny	07032	X					
24	Conrail	Blanchard Street- next to Otillio Landfill	Newark		X					
25	Norpak Corporation	70 Blanchard Street	Newark	07105	X					
26	Fairmount Chemical	117 Blanchard Street	Newark	07105		X		S - 7.8 ppm	S - 5.5 ppm	
79	Essex County Resource Recovery Facility (ECRRF)/American Ref-Fuel	60 Blanchard Street	Newark	07105					S - 5.7 ppm	S - 5.7 ppm
80	Commercial Solvents	196 Blanchard Street	Newark	07105						
27	G&S Motor Equipment Co. Inc.	1800 Harrison Ave.	Kearny	07032	X					
28	New Jersey Dept of Transportation	NJ Tpk. Exit 15W	Kearny	07032	X	X				
31	Benjamin Moore & Co.	134 Lister Avenue	Newark	07105				X	X	
32	Thomasset Colors Div. Hilton Davis	120 Lister Ave.	Newark	07105		X				
33	Technical Coatings	134 Lister Ave	Newark	07105		X				
34	Chris Craft/Montrose	100 Lister Avenue	Newark	07101	X			S - 25000		210 ppm
35	GSF Energy, Inc.	1501 Harrison Avenue	Kearny	07032		X				
36	SCA Chemical Service	100 Lister Avenue	Newark	07105	X					500 ppm (Tank)
37	Ronson Metals Corp	55 Manufacture Place	Newark	07105		X	P			
38	Reichold Chemicals	46 Albert Avenue	Newark	07105	X					
81	MSLA 1D	Harrison Avenue	Kearny	07032						

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TAB NO.	NAME	OTHER AROCLORS	UNIDENTIFIED AROCLORS	REFERENCES & NOTES
				HARRISON REACH
22	Route 508 Expansion		X	SSR.
24	Conrail			Regulatory Files, PCBs associated with rail yard.
25	Norpak Corporation			Regulatory Files, Foundry Street complex PRP.
26	Fairmount Chemical			104e, B(P).
79	Essex County Resource Recovery Facility (ECRRF)/American Ref-Fuel			Regulatory Files.
80	Commercial Solvents			Regulatory Files.
27	G&S Motor Equipment Co. Inc.		X	PADS, CERCLIS, PCB transformers
28	New Jersey Dept. of Transportation			104e, Regulatory Files.
31	Benjamin Moore & Co.	P 5460		Monsanto Sales, Aroclor 1260, PRP at Avenue P Landfill.
32	Thomasset Colors Div. Hilton Davis		X	Regulatory Files, 104e, Predecessor to Hilton Davis Co.
33	Technical Coatings	P-6062		Monsanto Sales, Aroclor 6062.
34	Chris Craft/Montrose			Regulatory Files.
35	GSF Energy, Inc.		X	PADS Database
36	SCA Chemical Service			Regulatory Files, Treated PCB waste and Sherwin Williams Waste
37	Ronson Metals Corp			Monsanto Sales - Therminol FR1, Pydraul 321.
38	Reichhold Chemicals		Contaminated Oil	B(P).
81	MSLA 1D		Sludge material containing PCB contaminated waste oils from Diamond Head deposited here.	Regulatory Files.

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39	Diamond Head Oil Refining Corp.	1401 Harrison Tpk.	Kearny	07032		X				
40	Sherwin Williams Co.	Brown St. & Lister Ave.	Newark	07105	X	X				
41	Reusche & Co. of T. W. S. Inc.	2 Lister Avenue	Newark	07105		X				
42	Nimco Shredding Company	Foot of Hawkins St.	Newark	07105						
43	Stanley Tools	140 Chapel Street	Newark	07105	X				S-42 ppm	S-2.90 ppm
44	Federal Pacific Electric Co.	150 Ave. L & Herbert	Newark	07101		X			X	
45	Prentiss Drug & Chemical	338 Wilson Avenue	Newark	07105	X					
46	Albert Steel Drum	338 Wilson Avenue	Newark	07105	X					
47	Tidewater Balling	26 St. Charles Street	Newark	07101	X					
48	Dresser Industries	401 Worthington Ave.	Harrison	07029	X		S- 190 ppm		S-31ppm SD-5.6	S-210 ppm SD-46 ppm
49	Betosia Corp.	37 St. Charles St.	Newark	07105		X				
50	Federated Metals	150 Charles Street	Newark	07105						
51	Signo Trading/1140 Thomas St. Site	140-170 Wilson Avenue	Newark	07105	X					
52	Crucible Steel	1000 South 4th Street	Harrison	07029	X				S - 3.8 ppm	
53	Guyon Piping	1000 South 4th Street	Harrison	07029	X				S - 3.8 ppm	
54	Kester Solder	88 Ferguson Street	Newark	07105		X				
55	Chem Fleur, Inc.	200 Pulaski Street	Newark	07105		X	P			

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TAB NO.	NAME	OTHER AROCLORS	UNIDENTIFIED AROCLORS	REFERENCES & NOTES
39	Diamond Head Oil Refining Corp.		Oil in Drum contained 3300 ppm of PCBs	Regulatory Files.
40	Sherwin Williams Co.	X	P- 5460	Monsanto Sales, 104e, PRP for Avenue P landfill, 5460 Hi Sol, 5460 Low Color.
41	Reusche & Co. of T. W. S. Inc.		X	PADS Database.
42	Nimco Shredding Company		X	PADS Database.
43	Stanley Tools			Regulatory Files.
44	Federal Pacific Electric Co.			Monsanto Sales.
45	Prentiss Drug & Chemical			Regulatory Files. Soil contamination - Aroclors 1248/1254.
46	Albert Steel Drum		X	SSR.
47	Tidewater Balling		X	Regulatory Files. PCB contamination at site border.
48	Dresser Industries			Regulatory Files.
49	Betosia Corp.	P 5460		Monsanto Sales.
50	Federated Metals		X	B(P).
51	Signo Trading/1140 Thomas St. Site		X	Regulatory Files. Brownfields Site.
52	Crucible Steel			Regulatory Files. Guyon Site Contamination.
53	Guyon Piping			Regulatory Files.
54	Kester Solder		X	B(P).
55	Chem Fleur, Inc.			Monsanto Sales.

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			NEWARK REACH							
57	A C Transformers	89 Madison Street	Newark	07105						
56	PSE&G Harrison Gas Plant	2000 Frank E Rogers Blvd	Harrison	07029	X					
58	Driver Harris Co.	201 and 308 Middlesex St.	Harrison	07029	X	X		P		
59	Otis Elevator Company	1000 South First Street	Harrison	07029		X				
60	Haz Subs Mgmt. Research Center	138 Warren Street	Newark	07102		X				
61	Celanese Plastics Div.	550 Broad St.	Newark	07102		X				
62	Westinghouse	95 Orange Street	Newark	07101		X				P
63	Wagner Electric Corporation (Cooper Industries)	50 Orange Street	Newark	07107						
83	Tenneco Oil Company	Foot of Harrison Avenue	Harrison	07029						
64	Staley Chemical (A. E. Staley)	100 Third Ave.	Harrison	07029		X				
			KEARNY REACH							
65	Keegan Landfill	Foot of Bergen Avenue	Kearny	07032	X				SW-4200 ppb	SW-2400 ppb
66	Hartz Mountain/Hyatt Roller Bearing	700 South 4th Street	Harrison	07029	X			S-9.2 ppm	S-4.4 ppm	
67	Franklin-Burlington Plastics	113 Passaic Avenue	Kearny	07032	X 8 ppm Total PCBs		GW- 8 ppm			
68	Talon Adhesives	160 Passaic Ave.	Kearny	07032		X				

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			NEWARK REACH	
57	A C Transformers			Transformer manufacturer.
56	PSE&G Harrison Gas Plant		X	B(P).
58	Driver Harris Co.			Monsanto Sales - PCB Trade Name: Santovac, PADS Database.
59	Otis Elevator Company			104e.
60	Haz Subs Mgmt. Research Center			PADS Database.
61	Celanese Plastics Div.			Monsanto Sales.
62	Westinghouse			Monsanto Sales - PCB Trade name: Transform Pyranol A1383B.
63	Wagner Electric Corporation (Cooper Industries)		Noflamol Trade name	CDC Reference: Noflamol - trade name for PCBs.
83	Tenneco Oil Company			Regulatory Files.
64	Staley Chemical (A. E. Staley)	P-5460		Monsanto Sales - 5460 Hi sol, adhesives manufacturer.
			KEARNY REACH	
65	Keegan Landfill		X	Regulatory Files.
66	Hartz Mountain/Hyatt Roller Bearing			Regulatory Files.
67	Franklin-Burlington Plastics		S- 8 ppm total PCBs	Regulatory Files, PCB transformers, plastics manufacturer.
68	Talon Adhesives		P-Montar 5	Monsanto Sales. Polychlorinated polyphenyl residue - PCB trade name: Montar 5.

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82	MacArthur Petroleum & Solvent Company/W.A.S. Terminals Corporation	126-210 Passaic Street	Kearny	07032						X
69	Bergen Metal	Foot of Bergen Avenue	Kearny	07032	X			X	S-2,600 ppb	
					ARLINGTON REACH					
70	Frey Industries/PPG	29 Riverside Drive	Newark	07104					S-24.4 ppm	X
71	PPG/Frey Industries	29 Riverside Avenue	Newark	07112		X			S-24.4 ppm	
72	Wilbur B. Driver Co.	1875 McCarter Highway	Newark	07104		X			P	
					PRPs WITH LIMITED INFORMATION					
73	Angelica Healthcare Group	Historic Address Not Found	Newark	07114						
74	City Electric	Historic Address Not Found	Newark	07102						
75	Diaprint Foils	Historic Address Not Found	Newark			X				
76	Weldotron	Historic Address Not Found	Newark			X	P			

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82	MacArthur Petroleum & Solvent Company/W.A.S. Terminals Corporation			Regulatory Files.
69	Bergen Metal			Regulatory Files.
	ARLINGTON REACH			
70	Frey Industries/PPG			Regulatory Files. PCB site contamination (24.4 ppm).
71	PPG/Frey Industries	P-5460		Paint production, Monsanto Sales - 5460-Hi Sol.
72	Wilbur B. Driver Co.			Monsanto Sales.
	PRPs WITH LIMITED INFORMATION			
73	Angelica Healthcare Group		X	PADS.
74	City Electric		X	PADS.
75	Diaprint Foils		X	Monsanto Sales - Aroclor 5460 Hi Sol.
76	Weldotron	P- 1221		Monsanto Sales, PCB Trade name: Pydraul 230.

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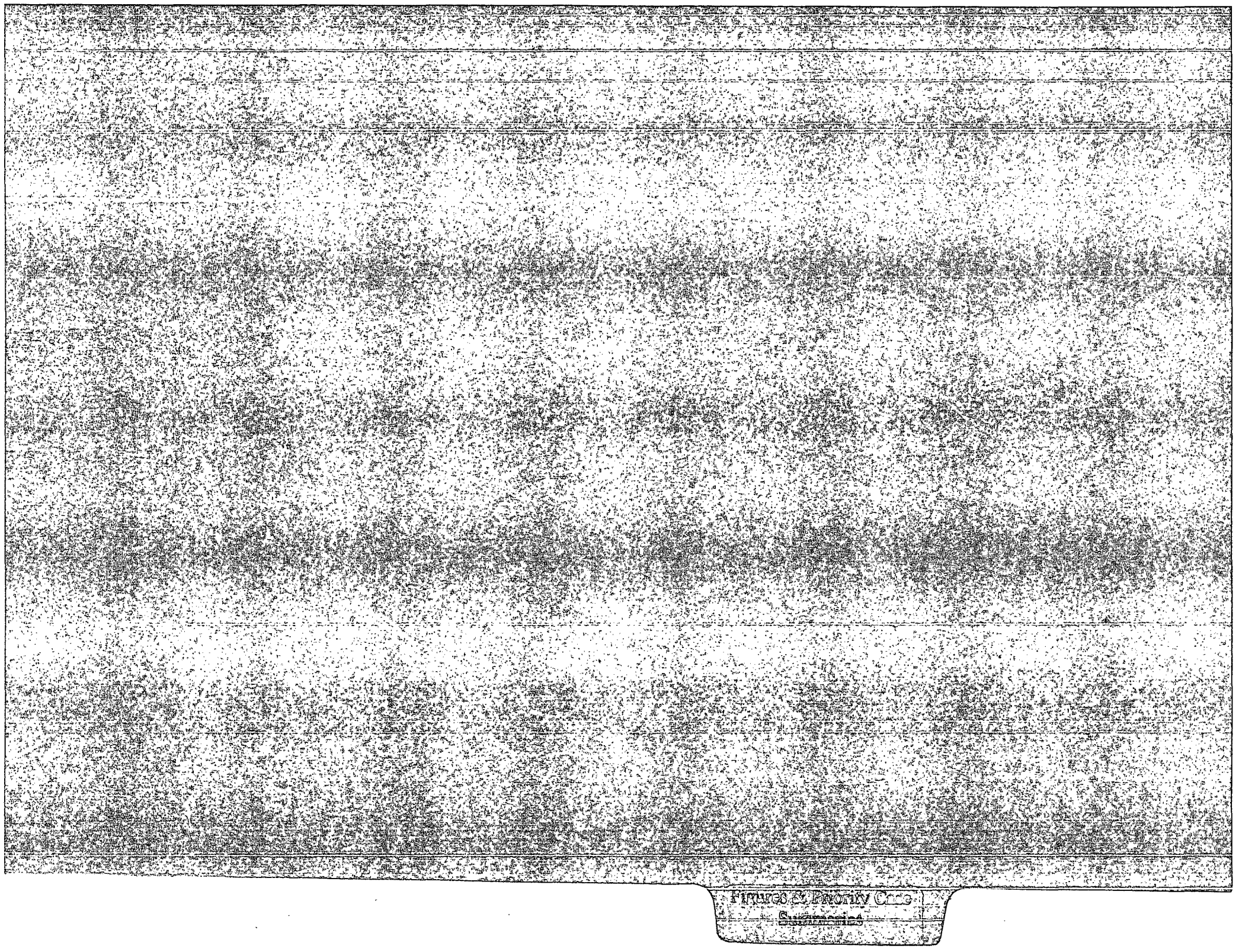
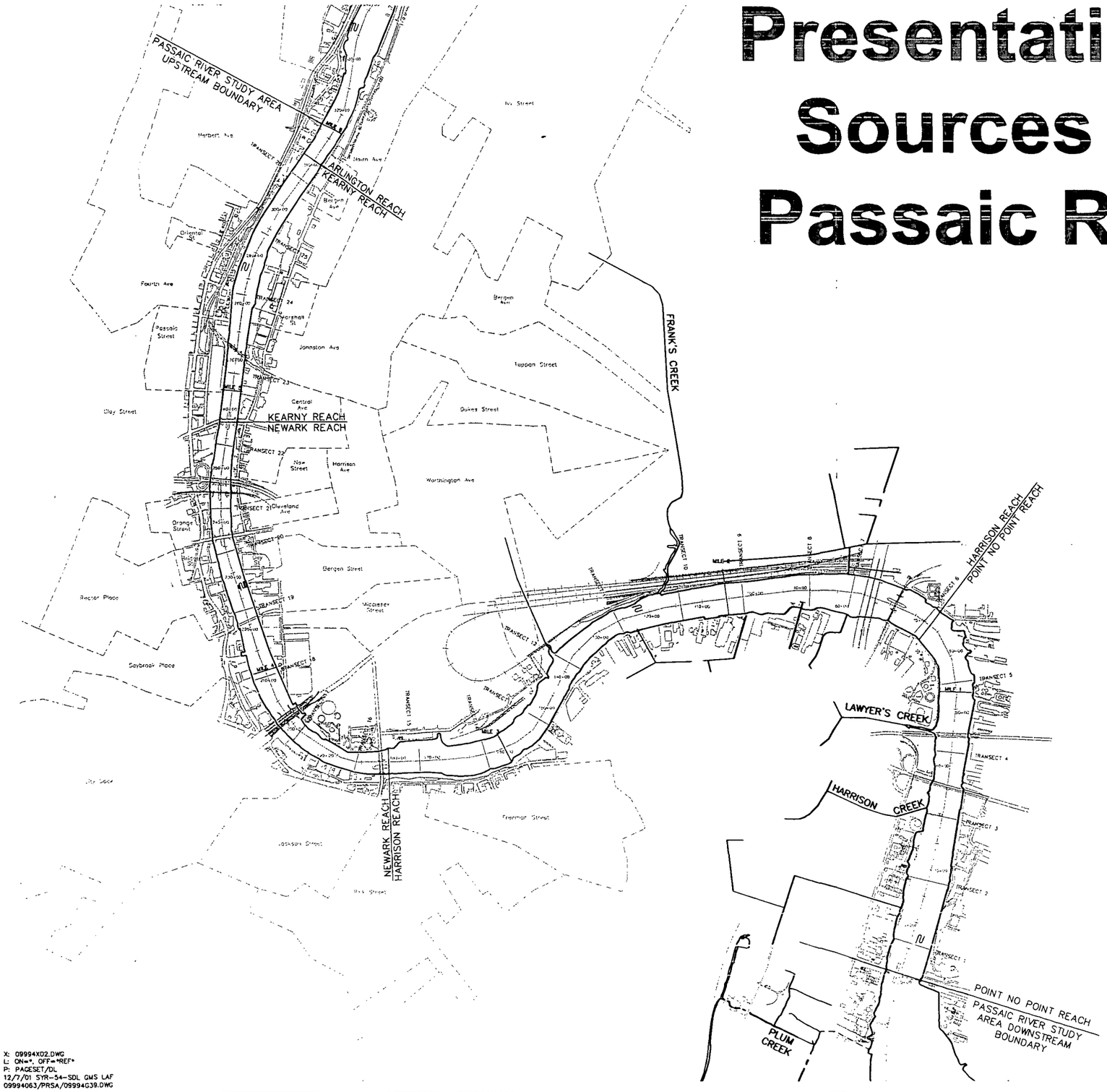

Figures & Priority Cases
Summaries

Presentation on PRPs and Sources of PCBs in the Passaic River Study Area



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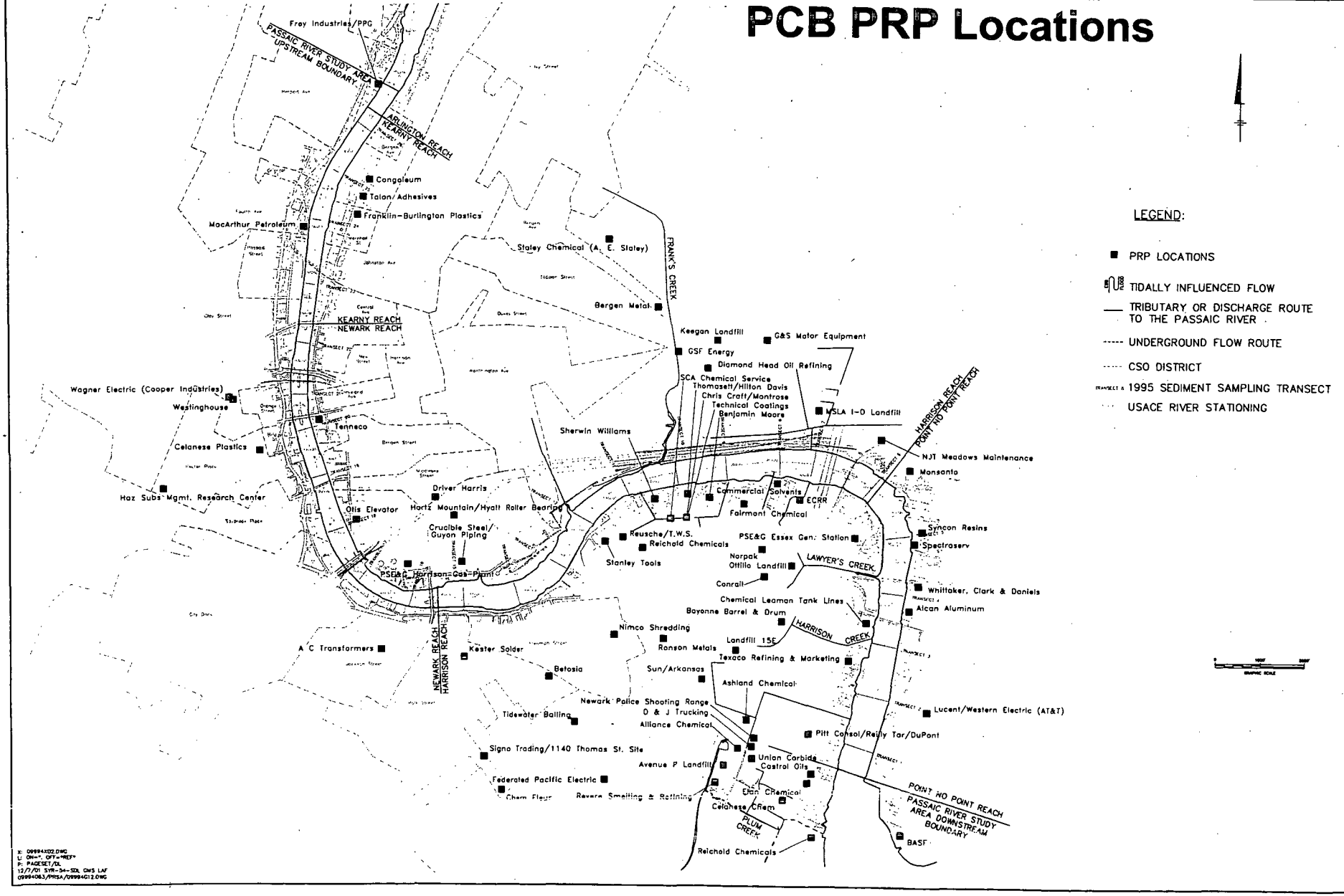
PCB PRP Locations



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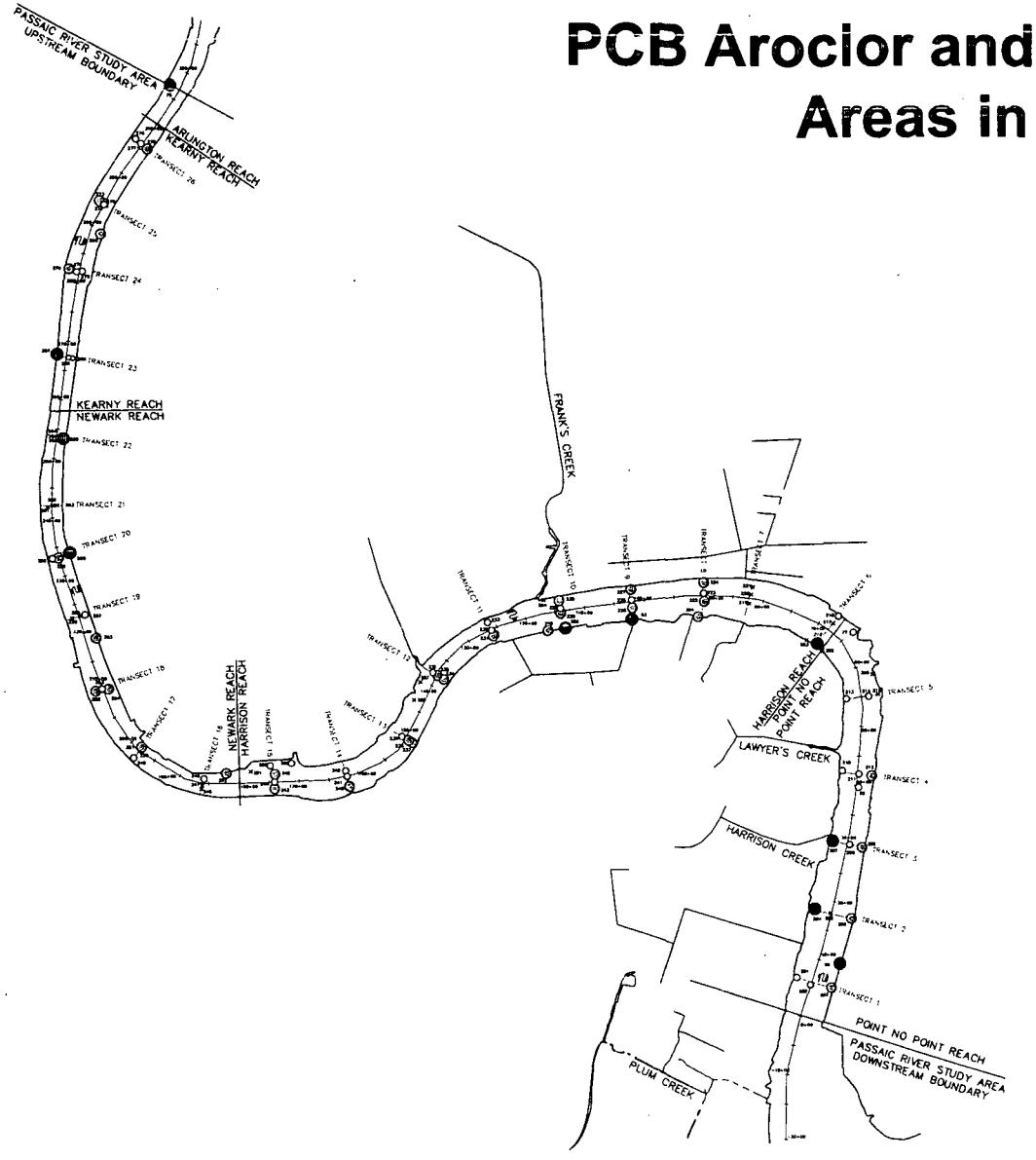
PCB Arocior and Congener Source Areas in the PRSA



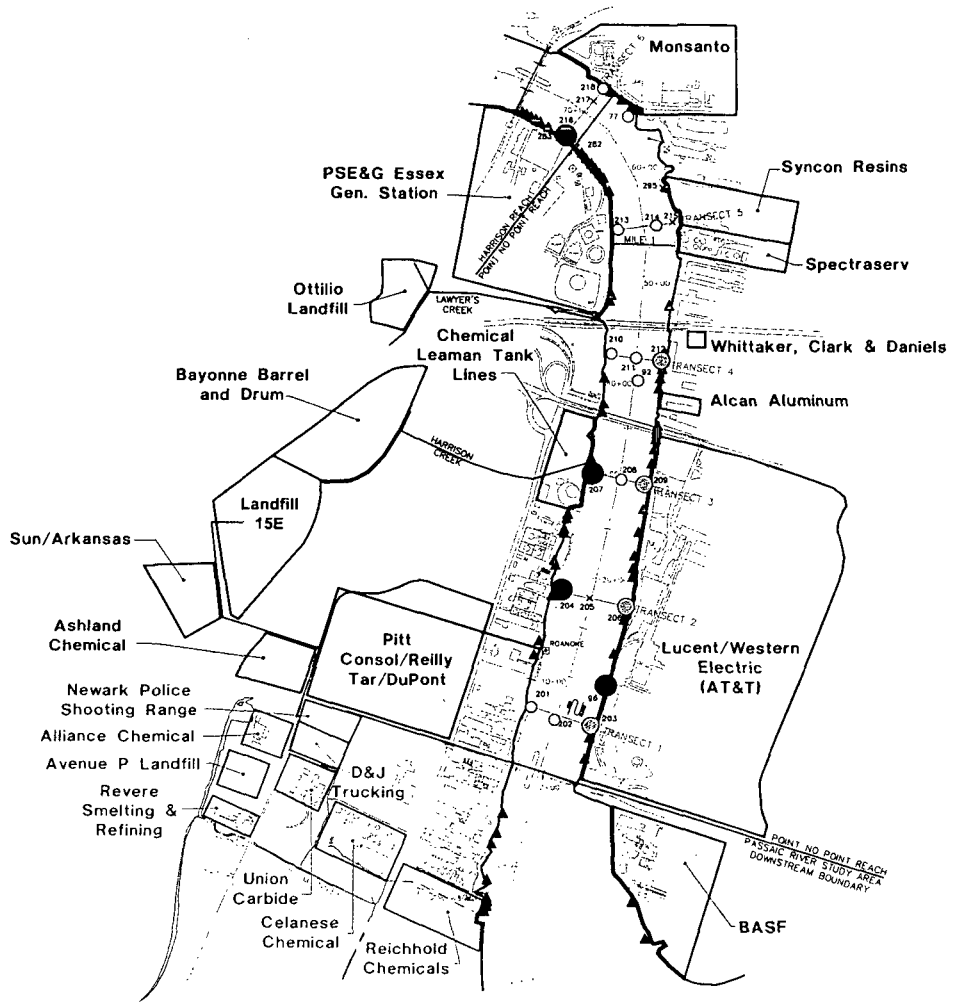
LEGEND:

- TIDALLY INFLUENCED FLOW
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- 1995 SEDIMENT SAMPLING TRANSECT
- USACE RIVER STATIONING

GRAPHIC SCALE

Point No Point Reach

PCB PRP Locations and PCB Source Areas in Point No Point Reach of the PRSA



LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
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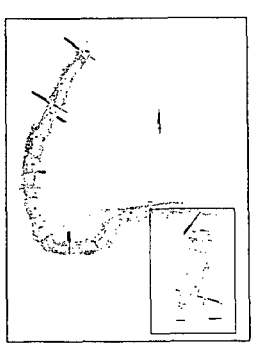
- 208 RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- TRANSECT 2 — 1995 RI SEDIMENT SAMPLING TRANSECT
- 1.00+00 — USACE RIVER STATIONING



GRAPHIC SCALE

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

BASF Corporation

LOCATION: Located at 50 Central Avenue, Kearny, New Jersey. The BASF site is on the east bank of the Passaic River.

OPERATIONS: BASF operated at this site from 1966 to 1990. BASF manufactured a variety of chemical products, including plastics, dyestuffs and various chemicals and chemical intermediaries. The main product manufactured by BASF at this site was Phthalic Anhydride (PA).

DISCHARGE ROUTES: BASF had distinct phases of on-site treatment of hazardous waste that was generated by the facility:

Phase I (1966-1971) BASF incinerated all process water and contaminated storm water (contaminated being defined as storm water which came into contact with process and chemical handling/storage areas) on-site. Sanitary water was discharged directly to the Kearny MUA.

Phase II (1971-1976) Same as Phase I, with the only modification being that evaporation ponds were constructed in order to reduce the volume of materials incinerated on-site. These evaporation ponds were concrete-lined ponds formerly located at the extreme southern end of the site, commonly known as Kearny Point. Sanitary sewer water continued to be discharged directly to the Kearny MUA.

Phase III (1976 – 1990) BASF completed a Wastewater Pretreatment Facility (WPF) in the area of the evaporation ponds (which were eventually decommissioned). Process water from the Dye and PA plants is routed through an underground conveyance system to the facilities WPF for pretreatment prior to being discharged to the Kearny MUA. Storm water that comes into contact with process and chemical handling/storage areas is routed to a neutralization tank where the water is treated for pH, neutralized and sent through a carbon filter system. From the neutralization tank the "contaminated" storm water and process water is sent to a clarifier, which separates the sludge from the water and subsequently discharges the effluent to Kearny MUA. The collected sludge was incinerated on-site up until closure of the incinerator in 1989.

Non-contact water generated from the facility's boiler room and PA plant was discharged directly to the Passaic River via New Jersey Pollution Discharge Elimination System Discharge to Surface Water permit.

BASF Continued...

SITE PCB SOURCES: The BASF site is known to have Aroclor 1242 in groundwater (28.8 ppb) and Aroclor 1260 in soil (9,010 ppb). Facility found to have drum(s) of unspecified PCBs during waste material inventory at site. PCBs found in soils at facility wastewater treatment plant, lagoon, electrical substation and at transformer pad. Other Aroclors detected in site soils and groundwater includes 1016, 1221, 1242, 1248 and 1254.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Lucent Technologies/ Western Electric/AT&T

LOCATION:

The AT&T site is located at 100 Central Avenue in Kearny (South Kearny), NJ. The site occupied approximately 147-acres. It is located on the east bank of the Passaic River at river mile 0.1.

OPERATIONS:

From 1925-1984 Western Electric (WE), then a subsidiary of AT&T, owned and operated the site. In 1984 AT&T closed the facility and began an extensive soil and groundwater remediation project pursuant to the New Jersey Environmental Cleanup Responsibility Act (ECRA). In 1984, the site was sold to Union Minerals and Alloy Corporation, which subsequently changed its name to RTC Properties.

The facility primarily manufactured and assembled electro-mechanical devices used in telephone networks. Manufactured products included cables insulated with lead and/or polyvinyl chloride, switchboards and consoles, relays, jacks and power equipment, transformers, etc. A primary processes at the facility was metal plating, which used chromium, copper, nickel, and zinc.

DISCHARGE ROUTES:

Discharge routes from the AT&T site to the PRSA include:

(1) Facility storm drains;
(2) Direct discharges via floor drains in processing Bldgs. # 170 and 32, and from drains in the drum storage pad area;
(3) Permitted facility outfalls. The facility maintained five NJPDES outfalls to the PRSA. Western Electric began operation of its on-site wastewater treatment plant in 1974/1975; and
(4) Contaminated surface water run-off and periodic flooding.

SITE PCB SOURCES:

- 89,000 ppm total PCBs were detected in sampling of site soils
- AT&T had 13 on-site active and inactive PCB transformers. That includes 2 inactive transformers found stored outside Bldg. 170.
- Facility documented to have stored drums with "virgin" PCB fluids. The virgin PCB fluids were used for as-needed re-filling transformers. Virgin PCB oil stored in Bldg. 32 and Bldg. 25.

PCB PRP Locations and PCB Source Areas Along Point No Point Reach Eastern Riverbank

LEGEND:

- TIDALLY INFLUENCED FLOW (EBB / FLOOD)
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
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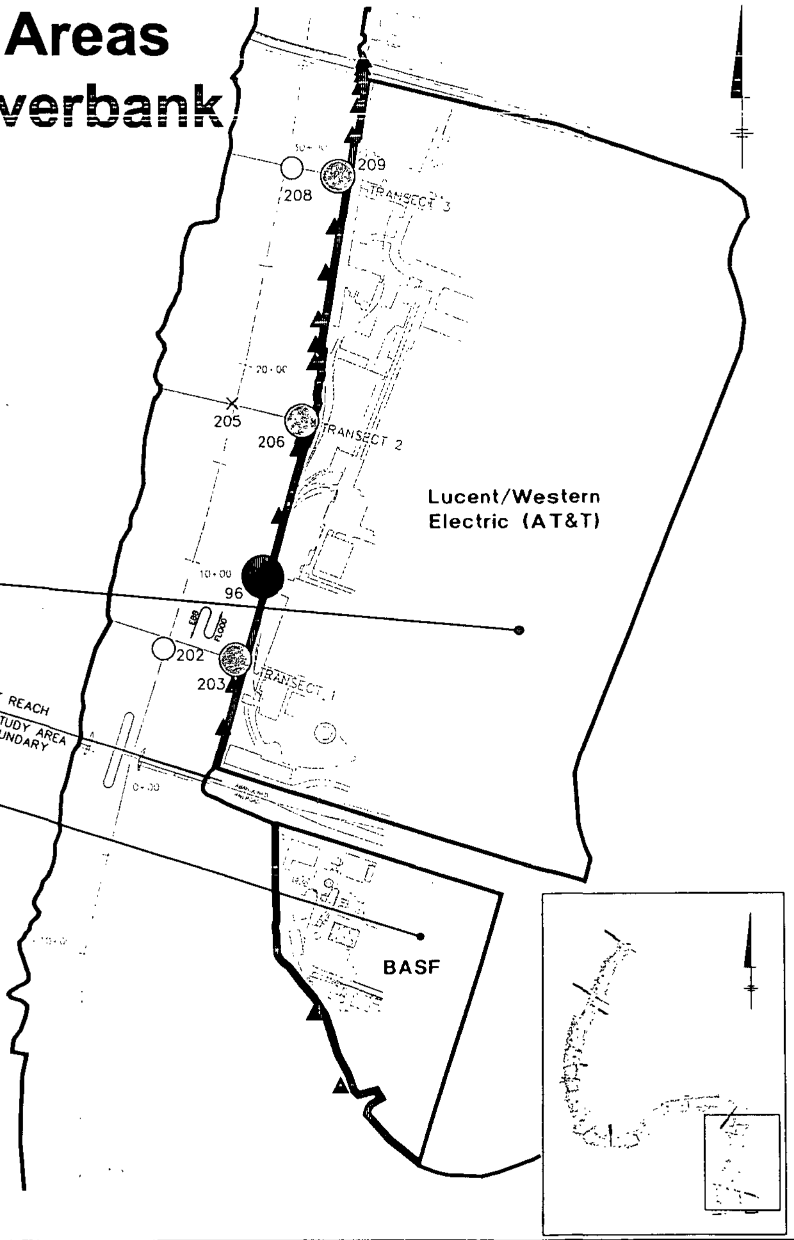
- UNDERGROUND FLOW ROUTE
- TRANSECT 8 — 1995 SEDIMENT SAMPLING TRANSECT
- 230+00 — USACE RIVER STATIONING



Core 96

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
96A017	1248	3280	BZ77	33
			BZ105	65
			BZ118	150
			BZ126	1.3
96A047			BZ77	42
			BZ105	72
			BZ118	260
			BZ126	1.2
96A077	[redacted]			

Core 202

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20205E			BZ157	5
			BZ169	0.037
20206E			BZ118	220
			BZ157	6.4
			BZ169	0.047

Core 203

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20308A	1248	2850	BZ77	83
			BZ105	160
			BZ114	15
			BZ118	430
			BZ126	1.3
			BZ156	47
			BZ157	[illegible]
			BZ167	34
			BZ169	0.059
20310A	1248	3250	BZ77	43
			BZ105	180
			BZ114	11
			BZ118	450
			BZ118	218
			BZ126	1.1
			BZ156	42
			BZ157	11
			BZ169	0.058

Core 206

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20602A			BZ189	1.8
20603A	1260	1080	BZ105	78
			BZ118	210
			BZ126	0.96
			BZ156	25
			BZ157	5.7
			BZ189	2.6
20604A	1248	4490	BZ77	73
	1254	2370	BZ105	130
			BZ114	14
			BZ118	330
			BZ118	256
			BZ126	1.2
			BZ156	35
			BZ157	6.4
			BZ167	40
			BZ189	2.9
20605A	1248	4720	BZ77	98
	1254	2970	BZ105	190
			BZ114	19
			BZ118	440
			BZ118	361
			BZ126	1.5
			BZ156	49
			BZ157	8.9
			BZ167	53
			BZ189	3.7

Core 208

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20802A	1248	2570	BZ77	62
			BZ105	98
			BZ114	8.8
			BZ118	250
			BZ156	23
			BZ157	5.7
			BZ169	0.063

Core 209

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20902B	1248	3270	BZ105	86
			BZ118	220
			BZ156	24
			BZ157	6.2
20903B			BZ77	35
			BZ118	220
			BZ157	6.8
			BZ169	0.069
20904B	1248	2500	BZ77	67
			BZ105	130
			BZ114	12
			BZ118	360
			BZ126	1.1
			BZ156	31
			BZ157	7.9
			BZ169	0.021
20905B	1248	4320	BZ77	91
	1254	2530	BZ105	240
			BZ114	[illegible]
			BZ118	630
			BZ118	293
			BZ126	1.5
			BZ156	54
			BZ157	[illegible]
			BZ167	48
			BZ169	0.048
20906B			BZ167	[illegible]
			BZ169	0.019

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L: ON=*, OFF=*REF*
P: PAGESET/DL
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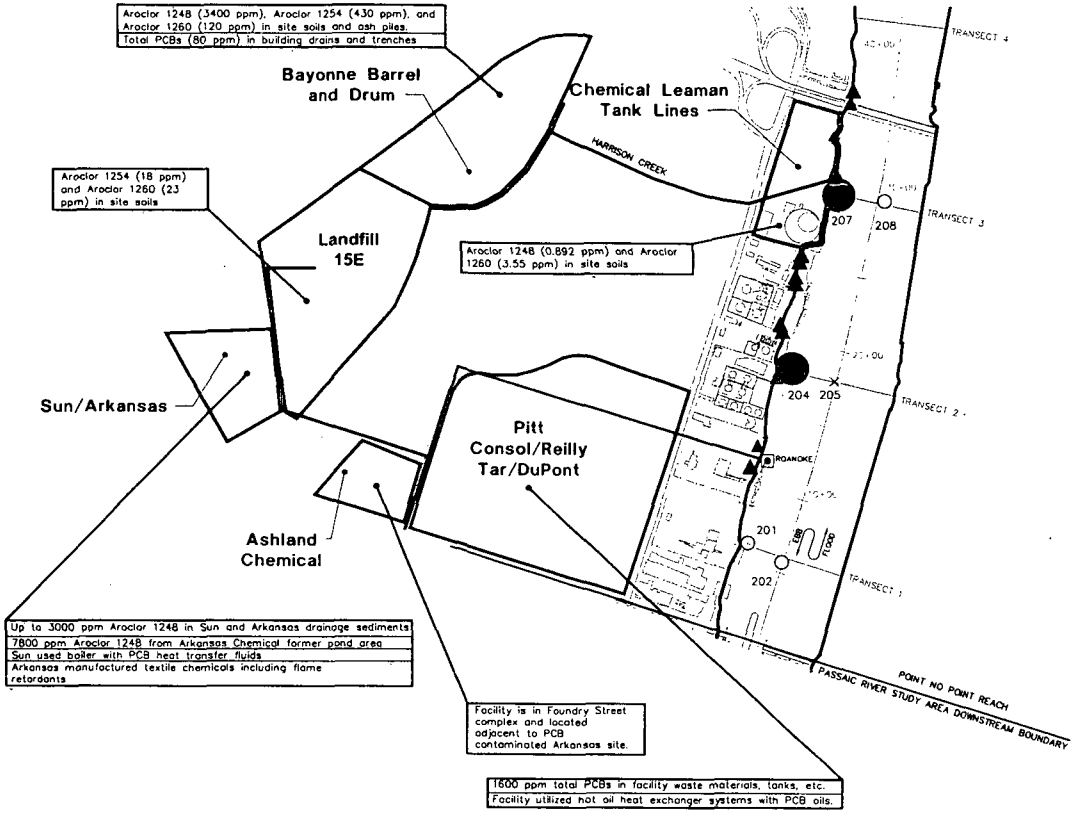
PCB PRP Locations and PCB Source Areas Along Point No Point Reach Western Riverbank



LEGEND:

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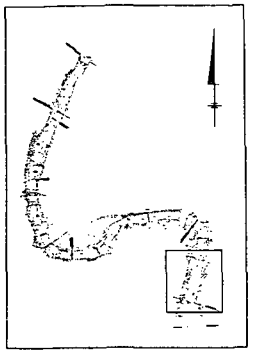


Core 201

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20101A			BZ169	0.078
20105A			BZ169	0.016
20106A	1248	3150	BZ105	91
			BZ118	230
			BZ189	0.017

Core 202

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20205E			BZ157	5
			BZ169	0.037
20206E			BZ118	220
			BZ157	6.4
			BZ169	0.047

Core 204

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20401A			BZ143	58
20405A	1248	4910	BZ77	68
			BZ105	100
			BZ114	9.9
			BZ118	240
			BZ118	205
			BZ156	24
			BZ167	30
20406A				
	1254	7070	BZ105	530
			BZ144	58
			BZ118	1100
			BZ118	685
			BZ126	3.9
			BZ156	110
			BZ157	22
			BZ167	9.1
			BZ189	5.7

Core 207

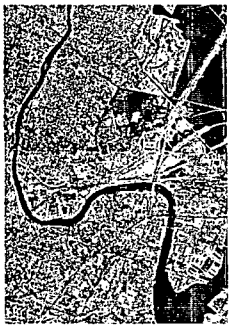
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20701A			BZ169	0.023
20702A	1260	2110	BZ77	37
			BZ105	130
			BZ114	10
			BZ118	400
			BZ126	1.5
			BZ156	56
			BZ157	11
			BZ167	36
			BZ169	0.097
			BZ189	3.5
20703A	1248	5100	BZ77	100
	1254	5630	BZ105	450
			BZ114	53
			BZ118	1600
			BZ118	682
			BZ126	3.3
			BZ156	90
			BZ157	25
			BZ167	68
			BZ169	0.066
			BZ189	6.1
20704A	1248	5310		
			BZ118	2200
			BZ126	4.2
			BZ157	47
			BZ169	0.079
			BZ189	8.3
20706A	1260	148		

Core 208

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20802A	1248	2570	BZ77	62
			BZ105	98
			BZ114	8.8
			BZ118	250
			BZ156	23
			BZ157	5.7
			BZ169	0.063

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

DuPont/Reilly Tar/Pitt Consol



LOCATION: The site is located at 191 Doremus Avenue, Newark, NJ, 07105. The property is located on the west bank of the Passaic River, approximately at study area river mile 0.5.

OPERATIONS: The DuPont/Reilly Tar/Pitt Consol facility was in operation from the late 1880s to 1986. Manufacturing operations ceased in 1983. The facility distilled and extracted products from coal tar, creosote oil and their derivatives.

DISCHARGE ROUTES: Two sewer lines paralleling each other transverse the site, the first being a 24" sanitary sewer and the second a 54" combined sewer that ran from a point located west of Avenue P to the river, discharging from a 60" outfall. The Avenue P regulator, constructed in 1951, is connected to the 54" sewer to divert all dry weather flow from the 54"to the 24" sanitary line. The 54" sewer was converted for use as a wet weather outfall only that discharged into the river. However, the Avenue P regulator was repeatedly not in working order due to sedimentation blocking the regulator gate chamber and all flow in the 54" sewer being directly discharged into the river.

Process related waste at the site was reportedly discharged to a "lagoon/settling pond" located at the northern end of the site where the waste was allowed to settle for a 24-hour period and was reportedly treated to neutralize the pH. The earliest aerial photographs reveal that the lagoon was present as early as 1944. After this settling period the process waste was reportedly discharged into the 54" storm sewer. Additionally, it has been documented by PVSC that in 1958 Pitt-Consol had an 8" pipe connection from an on-site sump, that accepted the facility's process waste, that also discharged to the 54"storm sewer. In 1972, it was reported by PVSC that Pitt-Consol was discharging process waste in the 54" storm sewer via a 10" pipe. Finally, a site map dated 1978 depicts various pipes, drains and sumps connected at the 24" sewer. The areas of the facility connected to the sewer include the south central tank farm, laboratory, boiler house, natural acid plant, synthetic cresylic plant, 500 series tank farm, 100 series tank farm, 200 series tank farm and alkylation unit.

SITE PCB SOURCES: The Reilly Tar/Pitt Consol facility utilized several hot oil heat exchanger systems containing PCB oils. Heat exchanger oils and piping were contaminated with up to 148 ppm total PCBs. Total PCBs were found in above ground storage tanks (500 ppm) and facility waste materials (1600 ppm).

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Newark Landfill 15E/ Newark Drive-In Site

LOCATION:

The Newark Landfill 15E/Newark Drive-In ("Landfill 15E") site is located on Foundry Street in Newark, New Jersey. The site is bounded by Foundry Street to the south, the New Jersey Turnpike to the east and northeast, by US 1 and 9 to the west, and by the Bayonne Barrel & Drum Superfund Site to the north.

In the early 1950s, the New Jersey Transit Authority ("NJTA") condemned a portion of the Landfill 15E site in order to expand the New Jersey Turnpike. Also in the early 1950s, as a result of this condemnation of land, NJTA conveyed additional land, including land that was previously used as the Landfill 15E site to the Bayonne Barrel & Drum Company.

OPERATIONS:

Prior to the mid 1950s, the property was operated as a sanitary landfill by the City of Newark. The landfill reportedly accepted construction and demolition debris. The Newark Drive-In (movies and entertainment) reportedly began operating at the site between 1951 and 1959.

DISCHARGE ROUTES:

Harrison Creek

Those portions of the former Landfill 15E site that subsequently became part of the former Bayonne Barrel & Drum site are known to discharge contaminants to the Passaic River via Harrison Creek, a tributary of the Passaic River. Contaminated site media from the former landfill disposal operations would be transported via site run-off to Harrison Creek and ultimately to the Passaic River.

Roanoke Avenue Regulator and Outfall

The facility storm water sewer system on the adjacent Bayonne Barrel & Drum property transects the eastern portion of the former Landfill 15E site and drains into the Passaic River. Nearly all surface and subsurface run-off that transects the eastern, and potentially southern, portions of the site drain through this storm water sewer system. The storm water sewer system is reported to be routed to the municipal sewer along Foundry Street. Prior to 1951, the municipal sewer along Foundry Street was routed into a 24-inch Roanoke Avenue sewer line. This line was routed east to a regulator mechanism located at the intersection of Roanoke Avenue and Doremus Avenue. During surcharge conditions, that regulator mechanism discharged sanitary wastewaters directly to the Passaic River.

Newark Landfill 15E / Newark Drive-In Site Continued ...

DISCHARGE ROUTES: (Continued)

As of 1951, the sewer regulator mechanism at the intersection of Roanoke Avenue and Doremus Avenue was abandoned and sealed in place. The inlet and outlet pipes of the Roanoke Avenue regulator were also sealed at that time. A new regulator and sewer line was built further west along Roanoke Avenue, near its intersection with Avenue P. However, that Avenue P regulator, its 54-inch sewer line and 60-foot outfall continued to allow bypassing to the Passaic River

SITE PCB SOURCES:

PCB contamination detected at the former Landfill 15E/Newark Drive-In site is reported to include up to 18 ppm of Aroclor1254 and up to 23 ppm of Aroclor 1260 in site soils.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Bayonne Barrel & Drum NPL Site

LOCATION:

The Bayonne Barrel & Drum Company (BB&D) NPL Site is located at 150-154 Raymond Boulevard, Newark, NJ. The site lies within 2000 feet of the Passaic River. Harrison Creek, a tributary to the Passaic River, currently flows along the eastern border of the property.

OPERATIONS:

While BB&D began operations in the early 1940's, a predecessor drum conditioning concern was in operation at the site as of circa 1931. BB&D filed for bankruptcy in July 1982, and discontinued operations in September 1983. BB&D's operations consisted of the reconditioning of steel drums using caustic solution, steel shot abrasive, incineration, and paint.

DISCHARGE ROUTES:

Harrison Creek, a tributary to the Passaic River, originally ran through the BB&D property on a route adjacent to facility waste lagoons. On-site ditches and waste lagoons were historically routed and discharged to the creek. Harrison Creek was reportedly diverted in approximately January 1948 to the eastern border of the property, and may have been realigned again in the early 1950s when the NJ Turnpike Authority acquired parcels of the property from BB&D for construction of the NJ Turnpike. The settling lagoon was filled in and a wastewater settlement tank was constructed and in use as of 1957-1958. As of 1959, the waste lagoons were filled in and drainage ditches at the eastern edge of the site drained to a "liquid-filled trench" adjacent to the old lagoon location.

By January 1973, the BB&D operation's industrial wastewater was discharged to an 80 foot settling sluice and holding tanks before being released into the sanitary sewer to PVSC. A 1980 USEPA report noted that site run-off water drains to Harrison Creek and Lawyers Creek "which are now enclosed in storm water culverts." The approximate 1% slope towards the north/northeast allows collection of runoff to drains along the eastern border of the site.

SITE PCB SOURCES:

Site soils are known to contain:

- Aroclor 1248 (3400 ppm)
- Aroclor 1254 (4300 ppm)
- Aroclor 1260 (1200 ppm)

Bayonne Barrel & Drum Continued...

SITE PCB SOURCES: (Continued)

Sampling of waste ash at the site detected:

- Aroclor 1248 (294 ppm)
- Aroclor 1254 (115 ppm)

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Chemical Leaman Tank Lines, Inc.

LOCATION: The Chemical Leaman Tank Lines, Inc., site is located at 80 Doremus Avenue in Newark, New Jersey. The site is located on the eastern banks of the Passaic River at site study area river mile 0.7.

OPERATIONS: Chemical Leaman has owned and operated at the site since 1970. The facility is presently operated by the successor to Chemical Leaman, Quala Systems, Inc. Chemical Leaman has operated the site as a trucking trailer terminal and tank truck washing facility. The terminal was also utilized for storage of empty tank trucks used for transporting bulk liquids including chemicals, food products, and other materials. Notable former site operations include a trolley maintenance and storage yard operated by Public Service Coordinated Transport, Inc., from approximately 1918 through the mid-1950; and an oil terminal operated by Paragon Oil Co. – (now Texaco) – from the mid-1950s through the 1960s time period.

DISCHARGE ROUTES:

Harrison Creek and Facility Storm Drains

Stormwater drains in the southwestern and central areas of the site collect potentially contaminated site stormwater runoff and discharge to the Passaic River via Harrison Creek, a tributary of the Passaic River.

Process Wastewaters

At present, process wastewaters discharged from the site to the municipal sanitary sewer on Doremus Avenue are routed directly to the Passaic Valley Sewerage Commissioners treatment plant on Wilson Avenue in Newark.

It is believed that prior to 1951, wastewaters from the northern Doremus Avenue area were directed to the Roanoke Avenue regulator system during surcharging of the sewer system. Any process wastewaters flowing to the Roanoke Avenue regulator were discharged to the Passaic River at the Roanoke Avenue outfall. The facility operations in place at the site prior to/as of 1951 were the operations of Public Service Coordinated Transport.

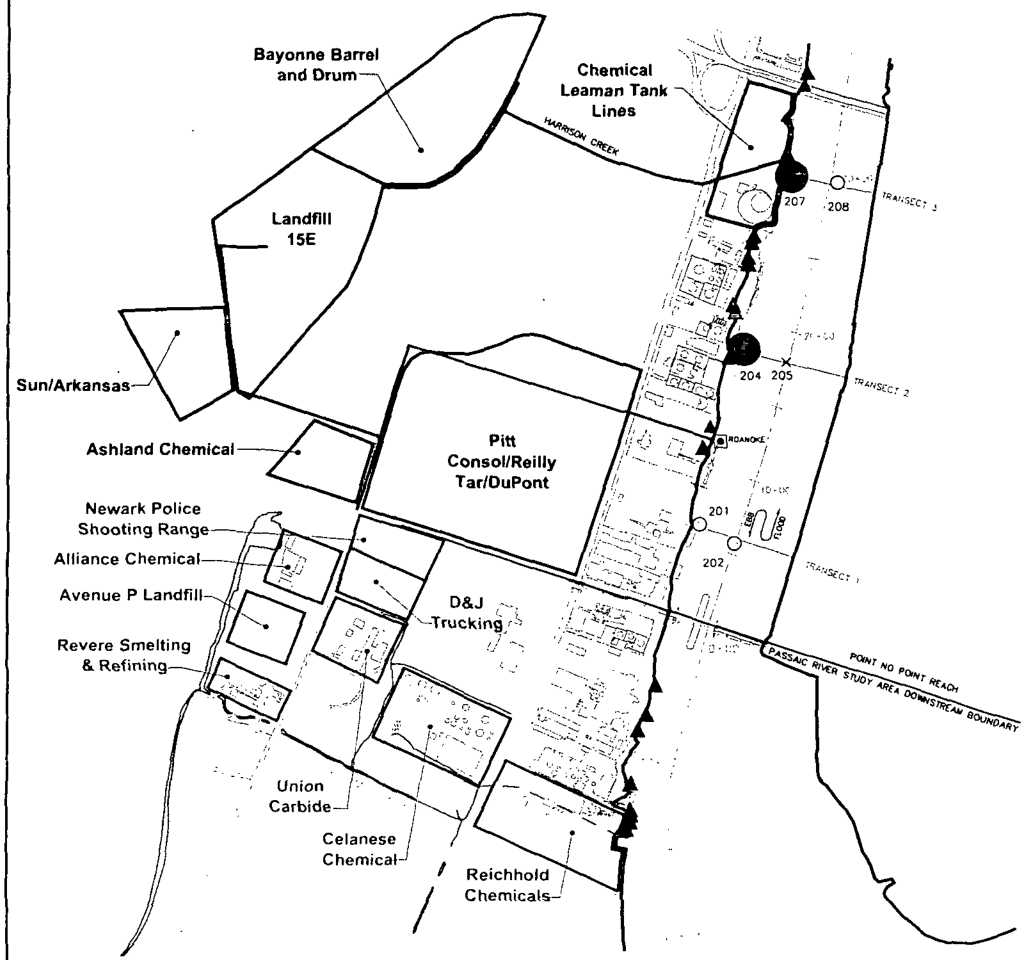
Surface Run-off

The Chemical Leaman site is located directly on the Passaic River. Surface run-off serves as a mechanism for transporting contaminated media from the site directly to the Passaic River. Site flooding conditions also serve as a mechanism for transporting contaminants spilled, leaked or discharged onto site soils into the Passaic River.

Chemical Leaman Tank Lines, Inc., Continued ...

SITE PCB SOURCES: PCB contamination identified at the Chemical Leaman Tank Lines site includes Aroclor 1248 (0.892 ppm) and Aroclor 1260 (3.55 ppm) in site soils.

PCB PRP Locations and PCB Source Areas Along Point No Point Reach Western Riverbank with Plum Creek Area



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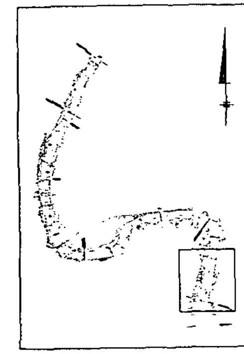
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- 208 × RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- TRANSECT 8 — 1995 RI SEDIMENT SAMPLING TRANSECT
- 230+00 — USACE RIVER STATIONING



Core 201

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20101A			BZ169	0.078
20105A			BZ169	0.016
20106A	1248	3150	BZ105	91
			BZ118	230
			BZ169	0.017

Core 202*

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20205E			BZ157	5
			BZ169	0.037
20206E			BZ118	220
			BZ157	6.4
			BZ169	0.047

Core 204

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20401A			BZ114	58
20405A	1248	4910	BZ77	68
			BZ105	100
			BZ114	9.9
			BZ118	240
			BZ118	205
			BZ156	24
			BZ167	30
20406A	[redacted]			
	1254	7070	BZ105	530
			BZ114	58
			BZ118	1100
			BZ118	685
			BZ126	3.9
			BZ156	105
			BZ157	22
			BZ167	9
			BZ189	5.7

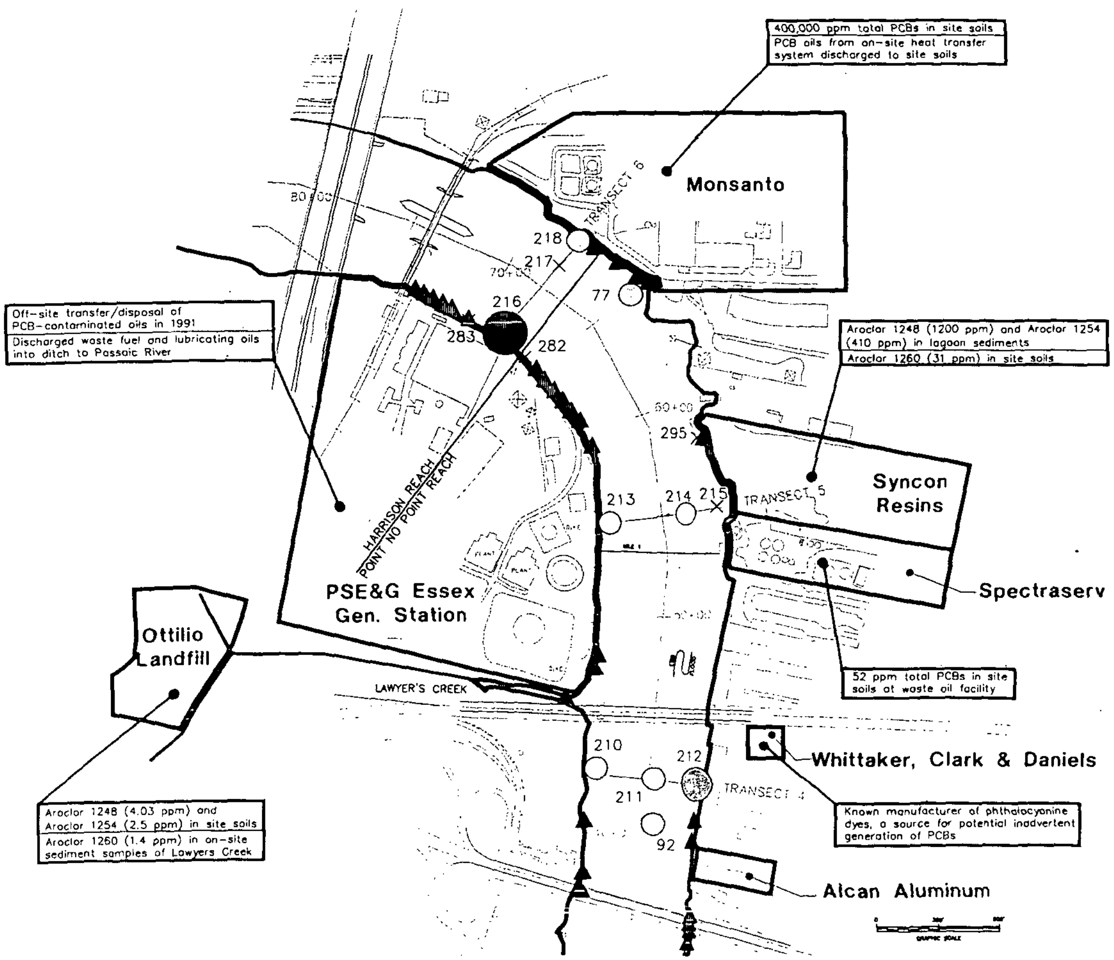
Core 207

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20701A			BZ169	0.023
20702A	1260	2110	BZ77	37
			BZ105	130
			BZ114	10
			BZ118	400
			BZ126	1.5
			BZ156	56
			BZ157	13
			BZ167	38
			BZ169	0.097
			BZ189	3.5
20703A	1248	5100	BZ77	100
	1254	5630	BZ105	450
			BZ114	53
			BZ118	1600
			BZ118	592
			BZ126	3.3
			BZ156	90
			BZ157	25
			BZ167	68
			BZ169	0.086
			BZ189	6.1
20704A	1248	5310	[redacted]	
			BZ118	2200
			BZ126	4.2
			[redacted]	
			BZ157	47
			[redacted]	
			BZ169	0.079
			BZ189	18.3
20706A	1260	148		

Core 208

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
20802A	1248	2570	BZ77	62
			BZ105	98
			BZ114	8.8
			BZ118	250
			BZ156	23
			BZ157	5.7
			BZ169	0.063

PCB PRP Locations and PCB Source Areas Along the Northern Portion of Point No Point Reach



Core 77				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
77A012			BZ126	0.6

Core 92				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
92A015	1248	2920	BZ105	53
92A020			BZ169	0.19

Core 210				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21001A	1260	661	BZ169	0.022
21002A	1260	274		

Core 211				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21101B	1260	512	BZ169	0.054
21102B	1254	2230	BZ77	42
			BZ105	77
			BZ118	302
			BZ118	220
			BZ157	5.3
			BZ167	34
			BZ169	0.024

Core 212				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21201A			BZ169	0.02
21202A	1248	5550	BZ105	160
			BZ114	15
			BZ118	440
			BZ118	214
			BZ156	44
			BZ197	[illegible]
			BZ169	0.069
21204A			BZ169	0.046
21205A			BZ169	0.068
21206A			BZ169	0.017
21207A	1248	4990	BZ77	120
	1254	2600	BZ105	180
			BZ114	17
			BZ118	450
			BZ118	242
			BZ126	1.6
			BZ156	33
			BZ157	8.5
			BZ169	0.071

Core 213				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21302A	1248	2950	BZ77	61
	1254	2050	BZ105	110
			BZ114	13
			BZ118	280
			BZ126	1.2
			BZ156	30
			BZ157	6.1
			BZ167	34
			BZ189	2.1

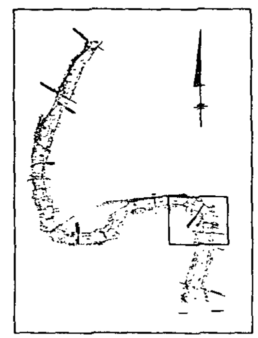
Core 214				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21401A			BZ118	280
21402A			BZ167	30
			BZ189	2

Core 216				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21601A	1248	6870	BZ118	544
	1254	3390		
21606A	[redacted]			

Core 218				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
21802A			BZ167	31

LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- ×208 RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- TRANSECT 5 — 1995 RI SEDIMENT SAMPLING TRANSECT
- 230+00 — USACE RIVER STATIONING



PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Whittaker Clark & Daniels

LOCATION: Whittaker Clark & Daniels, Inc., operated at the Tomkins Tidewater Terminals facility located at 1 Jacobus Avenue in South Kearny, New Jersey. The facility is located on the east bank of the Passaic River at site study area river mile 0.7.

OPERATIONS: Whittaker Clark & Daniels operated at the South Kearny site from approximately 1935 until approximately 1960. Products manufactured and/or distributed at the site include minerals, talc, aluminum separate, barites, phthalocyanine blue/ phthalocyanine green, seagull ultramarine blue, cosmetics colors, clays, fillers, purified titanium, asbestos, bentonite, colors, pigments and chalk.

DISCHARGE ROUTES: A network of storm sewers that drain directly to the Passaic River controls surface water drainage at the site. This site is reported to flood during storms and other periods of heavy precipitation.

SITE PCB SOURCES: Whittaker Clark & Daniels is known to have manufactured phthalocyanine blue and phthalocyanine green pigments at its South Kearny facility. The production of phthalocyanine blue and green pigments is known to be associated with the inadvertent production of PCBs.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Spectraserv

LOCATION: Spectraserv, formerly known as Modern Transportation, is located at 75 Jacobus Avenue in Kearny, NJ. The site is located along the eastern bank of the Passaic River at approximately site study area river mile 1.0.

OPERATIONS: Operations at the site began in approximately 1962. Spectraserv operates a sludge treatment and dewatering facility. Prior to March 17, 1991, the sludge generated was disposed at sea. Between 1978-1981 Spectraserv operated an "unpermitted" waste oil reprocessing facility. Between 1976-1988, Spectraserv also operated a neutralization facility on site.

DISCHARGE ROUTES: Mechanisms for the discharge of PCBs from Spectraserv to the PRSA include:

- The facility has historically had at least one additional stormwater outfall to the Passaic River.
- As of 1991, an on-site separator was used to collect and treat stormwater and site surface run-off flows. An existing 6-inch diameter outflow pipe from the separator discharges into the Passaic River.

SITE PCB SOURCES: Relative to PCB contamination, sampling conducted at site soils and aboveground storage tanks located in the area of Spectraserv's former waste oil recycling facility has resulted in the detection of total PCBs at concentrations up to 52 ppm.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Syncon Resins

LOCATION: The Syncon Resins site is located at 77 Jacobus Avenue, Kearny, New Jersey, on the east bank of the Passaic River at approximately site study area river mile 1.1.

OPERATIONS: Syncon Resins began operating at this site in February of 1962 as Farnow, Inc. Syncon Resins continued to operate this site until 1982 when Syncon Resins filed for bankruptcy and shut down operations at this site. Syncon Resins/Farnow, Inc. manufactured resins for pigment used in paints and varnishes. In addition they manufactured a line of alkyd resins for use in architectural and industrial finishes.

DISCHARGE ROUTES: May 1994 aerial photo analysis performed on behalf of USEPA document a discharge(s) from Syncon Resins site in 1969.

In 1977, the owner of Syncon Resins pled guilty to three illegal discharges of waste containing hazardous substances, including PCBs, to the Passaic River

A 1980 site investigation revealed "material has found its way into the river at the rear of the property."

It was stated in the 1986 RI/FS that if no remedial action is taken at the site "there will be a continued discharge of contaminated ground water and surface runoff to the Passaic River." The responsive summary for the completion of the remedial investigation/feasibility study at the Syncon Resins site states:

- "Presently, the contaminated ground water is discharging in to the surface water (Passaic River) through normal aquifer movement."
- "There was trench that separated the two properties of Syncon Resins and Modern Transportation. The trench seemed to be a catch basin collecting the contaminated run off from Syncon and directing it into the Passaic River."
- "The flow of the ground water within the Syncon site is the northeast to the southwest towards the Passaic River. The contamination tends to move from various locations on the site directly towards the river."

Syncon Resins Continued...

DISCHARGE ROUTES: (Continued)

Wastewater generated was discharged to two unlined lagoons. Overflow from the lagoons may have discharged to the Passaic River.

Site groundwater which is contaminated with hazardous substances historically used/produced on site discharged to the Passaic River.

Flooding events were recorded on Syncon property which would have washed contaminants form the site into the Passaic River.

A 1982 site investigation stated the possibility of contaminants to the Passaic River "through surface and groundwater pathways."

SITE PCB SOURCES:

Over 12,500 55-gallon drums were stored at the site. Many of the drums contained hazardous substances (i.e. PCBs, BN, flammable material, etc.). These drums were found to be rusting/leaking onto site soil.

In 1977, the owner of Syncon Resins pled guilty to three illegal discharges of waste containing hazardous substances, including PCBs, to the Passaic River

During the 1985/1986 RI/FS conducted at the site some of the following elevated levels of hazardous substances were found in the site soil(s), lagoons sediment (ls) and groundwater (gw). Concentrations are in ppm unless otherwise noted:

PCB 1248 at 1,200 (ls) PCB 1254 at 410 (ls)
PCB 1260 at 31 (s)

Specific information on PCB contamination was also found on the following occasions:

Building samples above the detection limit during the 1985 site investigations

Aroclor 1248	Building B-11	32 ppm
Aroclor 1254	Building B-1	17 ppm
	Building B-7	2.7 ppm
	Building B-11	24 ppm

Soil Sample analysis - June 1982

Aroclor 1242	Soil sample at T-9	33 ppm
Aroclor 1248	Soil sample at T-8	9.7 ppm

Ground Water analysis - July 1982

Total PCBs	Sample at T-9	0.63 ppm
Aroclor 1242	Sample at T-8	0.23 ppm

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Monsanto Chemical Company

LOCATION: The Monsanto Chemical Company facility operated at the Foot of Pennsylvania Avenue in Kearny, NJ. The site is located on the eastern bank of the Passaic River approximately at site study area river mile 1.4.

OPERATIONS: The facility is known to have produced surfactants and alkylphenols at the site since approximately 1954. Manufacturing operations were discontinued at the facility in 1991. Warehousing and distribution operations only continued after 1991.

DISCHARGE ROUTES: The facility is known to have discharged hazardous materials to the Passaic River through several mechanisms including:

- Direct discharges via facility's 27-inch sewer
- Indirect discharges via the Town of Kearny's 24-inch Pennsylvania Avenue storm sewer
- A series of three wastewater lagoons at the site that are believed to have been plumbed to discharge to the Passaic River
- Surface run-off from the riverfront site.

SITE PCB SOURCES: Monsanto is known to have utilized an on-site hot oil heat transfer system which contained PCB fluids.

- In the late 1960's, approximately 2,000 gallons of waste PCB containing heat transfer fluids are known to have been discharged to ground and buried in an on-site PCB disposal area.
- In the early 1970's another approximately 2,000 gallons of waste PCB-containing heat transfer fluids were discharged to ground and buried in the on-site PCB disposal area.

Up to 400,000 ppm total PCBs has been detected from sampling and remediation of site soils.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Public Service Electric & Gas (PSE&G)
Essex Generating Station

LOCATION: The PSE&G Essex Generating Station is located at 155 Raymond Boulevard, Newark, NJ 07101. The facility is situated on the west bank of the Passaic River at site study area river mile 1.0.

OPERATIONS: PSE&G has operated the Essex Generating Station from approximately 1915 to present. The facility, described as an electrical generating station, has historically utilized the burning of coal, natural gas and/or oil to power electricity-producing turbine machinery at the site. The station originally used coal-fired boilers to power the turbines but switched to natural gas and oil (kerosene) in the 1960s – most likely 1963. Transformers are used at the station to transfer the energy from the turbine generators to distribution networks.

DISCHARGE ROUTES: **Drainage Ditch**: The facility is known to have had a historical drainge ditch system which discharged to the Passaic River.

Permitted Outlets: The facility is known to have a total of five NPDES-permitted outfalls at the site which discharge to the Passaic River. Non-contact cooling water, boiler blowdown, and storm water/surface run-off collected on-site are routed into these outfalls to the Passaic River.

Surface Run-off: The PSE&G Essex Generating Station is located directly on the Passaic River. Storm water and surface run-off serves as a mechanism for transporting contaminated media directly to the Passaic River. Site flooding conditions also serve as a mechanism for transporting contaminants spilled, leaked or discharged onto site soils into the Passaic River.

The following discharges events serve to document the historical release of contaminants from the site to the Passaic River:

- In 1927/1928, PVSC reported discharges of tar and oily matter from the site.
- The analysis of a 1940 aerial photograph reportedly identified two discharges (locations not specified) from the site to the Passaic River.

PSE&G Essex Generating Station Continued ...

DISCHARGE ROUTES: (Continued)

- In 1973, approximately 20 gallons of Number 6 oil discharged into the river.
- In 1983, PSE&G personnel were found to be pumping oil matter out of manholes and discharging it onto the ground at the site.
- In 1991, approximately 10,000 to 13,000 gallons of kerosene leaked from an underground fill line that fed a 500,000 gallon above ground tank. An unknown amount was discharged to the river.
- In 1991, doxin – ranging from non-detect to 2 ppb – was detected in 3 samples under the NJ Turnpike bridge. The area where the dioxin was detected was part of the PSE&G Essex Generating Station property until at least 1965.
- During excavation work in 1992, an area of approximately 1 cubic yard was observed to be contaminated with what appeared to be oil.

SITE PCB SOURCES:

Sources of PCBs at the PSE&G Essex Generating Plant include the following:

- Use of PCB dielectric oils in transformers.
- Discharge of machinery lubricating oils potentially containing PCBs.

In a 1997 Response to a USEPA-issued CERCLA §104(e) Request for Information concerning the Passaic River Study Area, PSE&G admitted to the disposal of waste fuel oils and waste lubricating oils into its former drainage ditch to the Passaic River.

Elevated levels of PCBs were discovered in soil surrounding the facility's "No. 1" Turbine Unit in 1991. Online waste manifest records from 1991 indicate that 0.20 tons of "oil contaminated with PCB's" was shipped off-site to the Laidlaw Environmental Services facility located in Laurel, MD.

A mineral oil leak from a transformer occurred on September 16-17, 1993. The mineral oil from the transformer and from the spill area was analyzed and shown to contain 10-11 parts per million (ppm) PCBs. It was estimated that 900 gallons of mineral oil were discharged to the gravel/soil beneath the transformer.

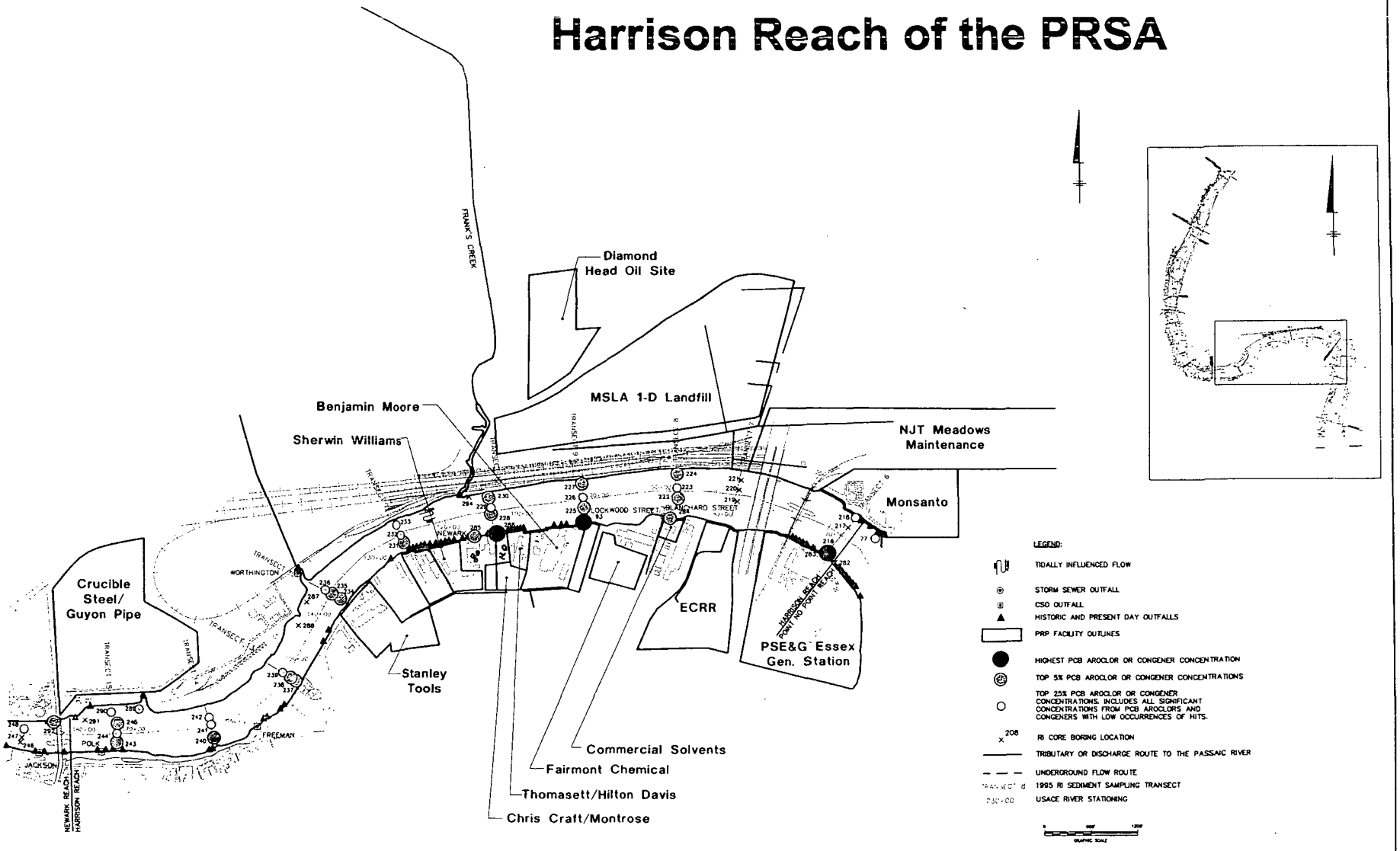
PSE&G Essex Generating Station Continued ...

SITE PCB SOURCES: (Continued)

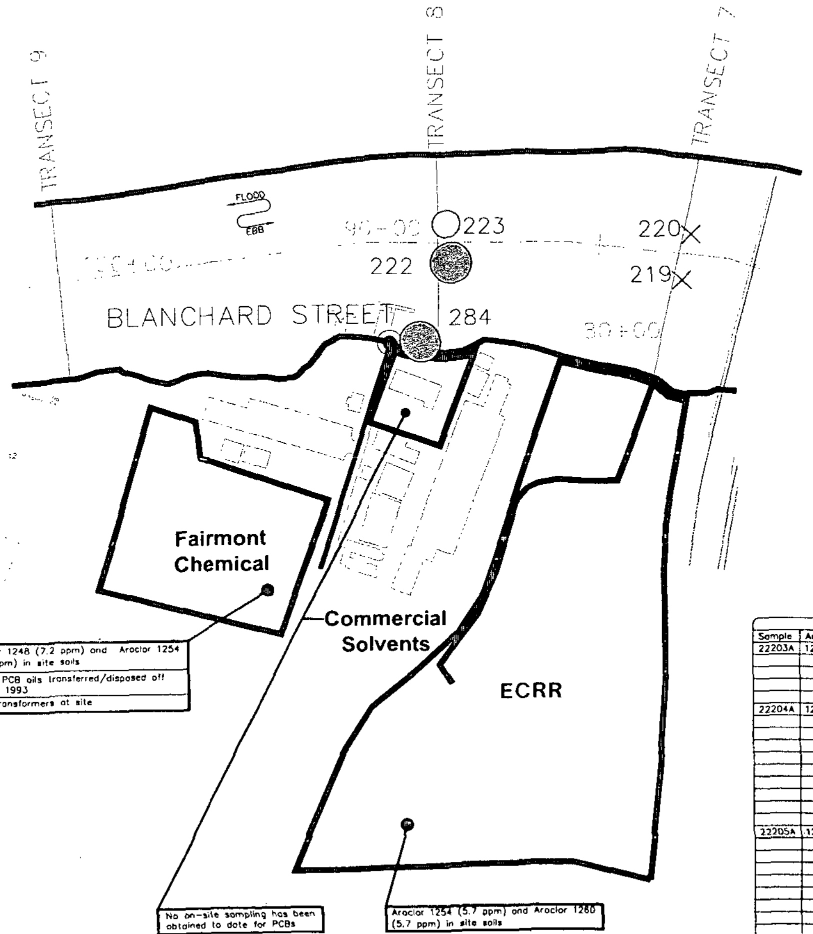
Post-excavation soil samples for total petroleum hydrocarbons (TPHC) and polynuclear aromatic hydrocarbons (PAHs) indicated the contaminated soil had been removed to Residential Direct Contact Soil Cleanup Criteria. However, the post-excavation samples were not analyzed for PCBs.

Harrison Reach

PCB PRP Locations and PCB Source Areas in Harrison Reach of the PRSA



PCB PRP Locations and PCB Source Areas Along Harrison Reach
Southwestern Riverbank



LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
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- 208 × RI CORE BORING LOCATION
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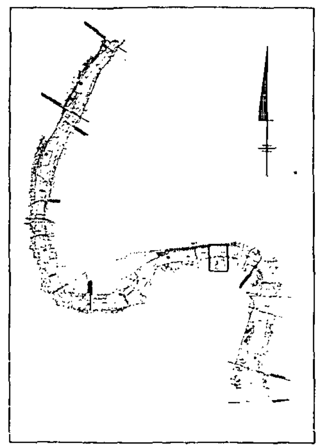


Core 222

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22203A	1260	670	BZ77	43
			BZ105	82
			BZ114	8.5
			BZ118	250
			BZ167	30
22204A	1248	3910	BZ77	100
			BZ105	190
			BZ114	20
			BZ118	450
			BZ118	209
			BZ126	[illegible]
			BZ156	44
			BZ157	9
			BZ167	40
			BZ189	2.5
22205A	1248	2940	BZ77	58
			BZ105	130
			BZ114	13
			BZ118	350
			BZ126	1.1
			BZ156	35
			BZ157	6.8
			BZ167	37
			BZ189	2.5
22206A	1248	5970	BZ77	79
	1254	3810	BZ105	190
			BZ114	19
			BZ118	440
			BZ118	329
			BZ126	1.5
			BZ156	45
			BZ157	8.5
			BZ167	53
			BZ189	2.8
22207A	1248	2500	[illegible]	[illegible]

Core 223

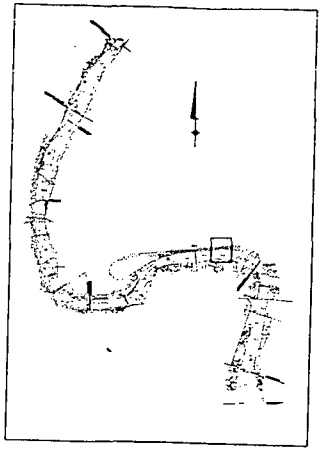
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22304A	1248	4370	BZ105	100
	1254	2480	BZ114	11
			BZ118	270
			BZ156	34
			BZ157	6.2
			BZ167	43
22305A	1254	2380	BZ105	96
			BZ114	9.5
			BZ118	240
			BZ156	31
			BZ157	6
			BZ167	37
22306A	1248	3420	BZ77	37
	1254	2420	BZ105	110
			BZ114	11
			BZ118	290
			BZ118	208
			BZ126	0.97
			BZ156	39
			BZ157	9.1
			BZ167	52

Core 284

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
28403B	[illegible]	[illegible]	[illegible]	[illegible]
			[illegible]	[illegible]
			[illegible]	[illegible]
			[illegible]	[illegible]
			BZ126	1.5
			BZ156	39
			BZ157	8.7
			BZ167	38
			BZ189	2.3

12/6/01 SYR-54-SDL GMS LAF
09994063/PRSA/09994G31.DWG

PCB PRP Locations and PCB Source Areas Along Harrison Reach Northeastern Riverbank



Core 223

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22304A	1248	4370	BZ105	100
	1254	2480	BZ114	11
			BZ118	270
			BZ156	34
			BZ157	6.2
			BZ167	43
22305A	1254	2380	BZ105	96
			BZ114	9.5
			BZ118	240
			BZ156	31
			BZ157	6
			BZ167	37
22306A	1248	3420	BZ77	37
	1254	2420	BZ105	110
			BZ114	11
			BZ118	290
			BZ118	208
			BZ126	0.97
			BZ156	39
			BZ157	9.1
			BZ167	52

Core 224

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22402A	1248	2860	BZ77	61
			BZ105	77
			BZ118	337
			BZ118	220
			BZ189	1.8
22403A	1248	5430	BZ77	88
	1254	3250	BZ105	150
			BZ114	17
			BZ118	385
			BZ118	380
			BZ126	1.4
			BZ156	35
			BZ157	7
			BZ167	52
			BZ189	3.1
22404A	1248	5430	BZ77	92
	1254	4340	BZ105	170
			BZ114	16
			BZ118	400
			BZ118	324
			BZ126	1.3
			BZ156	41
			BZ157	8.2
			BZ167	53
			BZ189	3
22405A			BZ77	120
			BZ105	180
			BZ114	16
			BZ118	390
			BZ126	1.1
			BZ156	41
			BZ157	8.1
			BZ167	54
			BZ189	3
22406A	1248	4720	BZ77	74
	1254	4320	BZ105	190
			BZ114	20
			BZ118	470
			BZ118	434
			BZ126	1.2
			BZ156	51
			BZ157	9.7
			BZ167	64
			BZ189	4.5

Core 226

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22603A	1254	2180	BZ77	50
			BZ105	83
			BZ114	8.4
			BZ118	220
			BZ126	0.94
			BZ167	33
			BZ189	2.4
22604A	1248	3340	BZ77	83
	1254	2990	BZ105	130
			BZ114	12
			BZ118	340
			BZ118	291
			BZ126	1
			BZ156	33
			BZ157	6.6
			BZ167	43
			BZ189	2.9
22605A	1248	2960	BZ77	48
	1254	3320	BZ105	120
			BZ114	12
			BZ118	320
			BZ156	34
			BZ157	7
			BZ167	37
			BZ189	2.9

Core 227

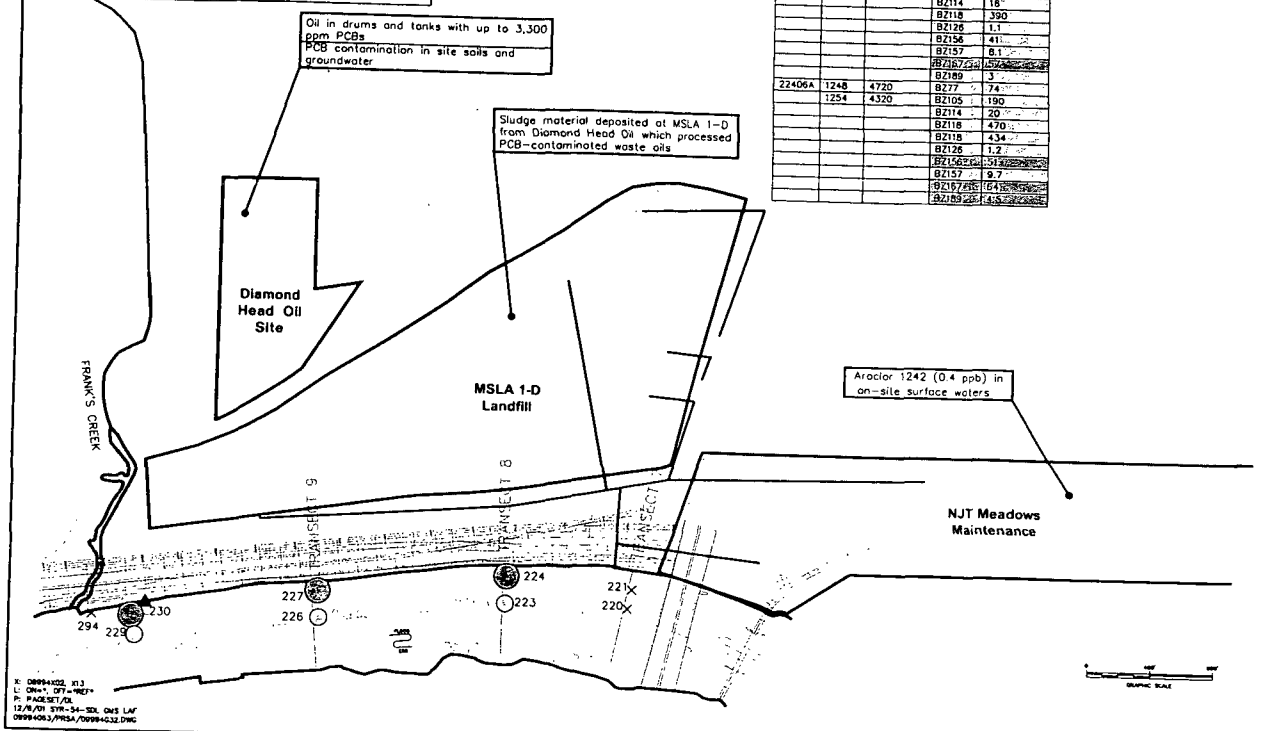
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22702A			BZ77	61
			BZ105	110
			BZ114	12
			BZ118	330
			BZ126	1.1
			BZ156	30
			BZ157	6.3
			BZ167	44
22703A	1248	3780	BZ77	68
	1254	2960	BZ105	150
			BZ114	15
			BZ118	350
			BZ126	1.2
			BZ156	38
			BZ157	7.4
			BZ167	56
22704A	1248	5690	BZ77	100
	1254	4730	BZ105	220
			BZ114	21
			BZ118	510
			BZ118	344
			BZ126	1.7
			BZ156	57
			BZ157	12
			BZ167	62
			BZ189	2.3
22705A	1248	3800	BZ77	92
	1254	2550	BZ105	250
			BZ114	26
			BZ118	600
			BZ126	1.8
			BZ156	69
			BZ157	15
			BZ167	70
			BZ189	2.9
22706A	1254	2660	BZ77	42
			BZ105	120
			BZ114	11
			BZ118	330
			BZ156	38
			BZ157	7.9
			BZ167	46
			BZ189	2.3

Core 229

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22904A			BZ77	40
			BZ105	84
			BZ118	230
			BZ126	0.95
			BZ167	36
			BZ189	1.9
22905A			BZ77	59
			BZ105	120
			BZ114	12
			BZ118	330
			BZ156	31
			BZ157	6.2
			BZ167	47
			BZ189	2.4
22906A			BZ77	85
			BZ105	180
			BZ114	18
			BZ118	440
			BZ126	1.4
			BZ156	45
			BZ157	9
			BZ167	49
			BZ189	3.3

Core 230

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
23004A	1248	2520	BZ77	40
			BZ105	88
			BZ114	9.2
			BZ118	210
			BZ156	23
			BZ167	33
23005A			BZ77	67
			BZ105	100
			BZ114	11
			BZ118	250
			BZ126	1.1
			BZ156	27
			BZ167	38
23006A	1248	3350	BZ77	85
	1254	2670	BZ105	170
			BZ114	17
			BZ118	400
			BZ118	266
			BZ126	1.3
			BZ156	46
			BZ157	9.6
			BZ167	55
			BZ189	2.4
23007A			BZ105	79
			BZ118	481
			BZ118	210
			BZ156	24
			BZ167	31



LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- 208 RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- 1995 RI SEDIMENT SAMPLING TRANSECT
- USACE RIVER STATIONING

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Municipal Sanitary Landfill Authority (MSLA) Landfill 1D

LOCATION: The Municipal Sanitary Landfill Authority (MSLA) Landfill 1D site consists of 93.8 acres located off Harrison Avenue in Kearny, NJ. The site is bounded by Harrison Avenue and Route 280 on the north/northwest, Frank's Creek and Conrail railroad tracks to the west, Conrail railroad tracks and the Passaic River to the south, and the New Jersey Turnpike/wetlands to the east. The distance to the Passaic River from the site is less than 1,000 feet at its nearest point.

OPERATIONS: The MSLA 1D Landfill site is a former sanitary waste landfill. The MSLA began "official" sanitary landfill operation on the site as of the late 1960s. However, portions of the site appear to have been filled as early as 1949. The landfill operation closed on December 31, 1978 but was extended to April 30, 1979 to accept waste loads from 7 New Jersey municipalities. The landfill was again reopened to accept Essex County waste in 1981. Numerous violation notices were issued to the MSLA throughout the years of operation of the landfill. NJDEP issued an administrative order to MSLA to finally cease operations at the landfill effective September 22, 1982.

DISCHARGE ROUTES: The site is located adjacent to both Frank's Creek (west) and the Passaic River (south) - allowing for direct runoff, discharge of leachate, and/or discharge of groundwater to these surface waters. Frank's Creek discharges to the Passaic River in the vicinity of the southwest corner of the site. Leachate collects in low-lying areas on the south and east sides of the landfill and overflows into adjacent marshes. These marshes are hydraulically connected with an intertidal pond in the southeast area of the landfill which, in turn, is connected by a culvert to the Passaic River. NJDEP documented that the landfill's leachate containment dike was "leaking into the surrounding meadow and eventually to the tide pump" operated by the Hudson Mosquito Commission on the Passaic River (Cedar Creek Pumping Station). Leachate continues to seep to the river as of a 1999 Remedial Action Plan.

SITE PCB SOURCES: The MSLA 1D Landfill site is located adjacent and east of the Diamond Head Oil Refinery Superfund site. Sludge material was deposited at MSLA 1-D from Diamond Head Oil, which processed PCB contaminated waste oils.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Diamond Head Oil Refining Site

LOCATION: The Diamond Head Oil Refining Company site was located at 1401 Harrison Turnpike, Kearny, NJ.

OPERATIONS: The facility operated as a waste oil refinery.

DISCHARGE ROUTES: 8/30/60 - New Jersey Dept. of Health Inspection Report states that collection lagoon overflows into surrounding swamps causing large amounts of oil to leak into the swamps. The Hudson county Mosquito Commission pumps water from the swamp into the Passaic River.

4/3/78 - New Jersey DOT memo regarding Diamond Head Oil discharge notes On 3/30/78, "observed that Diamond Head Oil Co., was draining one of their tanks using a hose, to the west of their property. This oil and water mixture follows the existing ground contours and winds up on the State R.O.W."

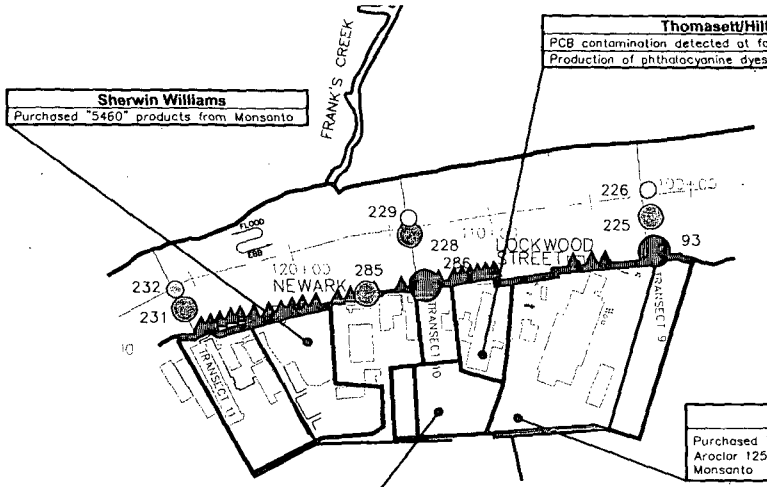
4/80 - Report on Investigation of Oil Contamination in "Oil Lake", Kearny, New Jersey, prepared by Weston, notes the following:

- Points out that 1947 aerial photographs do not show the existence of the "oil lake." These photographs do show fluid flow from the Diamond Head Oil Company heading towards the area of what would become the "oil Lake." The report goes on to conclude that land filling in the area of what would become MSLA 1-D resulted in this flowing fluid from Diamond Head Oil becoming the "oil lake."
- The document concludes that it is improbable that the "oil lake" was created by fluids coming from MSLA 1-D

SITE PCB SOURCES:

- 3/15/88 - New Jersey DEP letter to Hudson Meadowlands Urban Development Corp., states "of additional concern is the possibility of PCB's in soil, as Mr. Mahler [site operator] was alleged to have dealt in PCB-tainted oil."
- Oil in drums and tanks with up to 3300 ppm PCBs
- PCB contamination in site soils and groundwater

PCB PRP Locations and PCB Source Areas Along Harrison Reach Southwestern Riverbank



Sherwin Williams
Purchased "5460" products from Monsanto

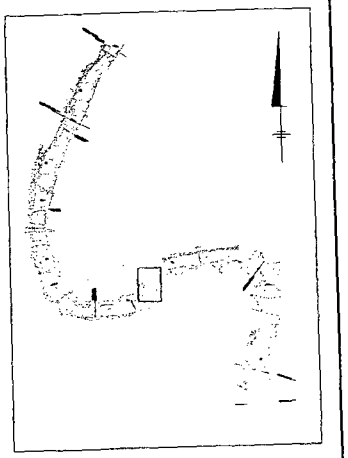
Thomasett/Hilton Davis
PCB contamination detected at facility transformer pad area
Production of phthalocyanine dyes known to generate PCBs

Benjamin Moore
Purchased Therminol Aroclor 1248 heat transfer oils, Aroclor 1254, and Aroclor "5460" products from Monsanto

Chris Craft/Montrose
25 ppm Aroclor 1248 in Montrose site soils
Aroclor 1260 (210 ppm) in tank of site operator, SCA Chemical
50 ppm Aroclor 1260 in SCA process sump system

LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- 208 — RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- TRANSECT 8 — 1995 SEDIMENT SAMPLING TRANSECT
- 230+00 — USACE RIVER STATIONING



Core 93

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
93A001			BZ118	99
93A024	[redacted]			
			BZ118	220
			BZ169	0.33
93A040			BZ77	33
			BZ126	1.6

Core 225

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22503A			BZ77	37
			BZ105	78
			BZ118	220
			BZ156	24
			BZ167	36
22504A			BZ77	73
			BZ105	160
			BZ114	17
			BZ118	410
			BZ126	1.3
			BZ156	41
			BZ157	7.8
			BZ167	46
			BZ189	2.1
22505A	1248	2880	BZ77	57
			BZ105	130
			BZ114	13
			BZ118	330
			BZ126	1
			BZ156	36
			BZ157	7.1
			BZ167	43
			BZ189	1.9
22506A			[redacted]	

Core 226

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22603A	1254	2180	BZ77	50
			BZ105	83
			BZ114	8.4
			BZ118	220
			BZ126	0.94
			BZ167	33
			BZ189	2.4
22604A	1248	3340	BZ77	63
	1254	2990	BZ105	130
			BZ114	12
			BZ118	340
			BZ126	291
			BZ128	1.6
			BZ156	33
			BZ157	8.8
			BZ167	43
			BZ189	2.9
22605A	1248	2980	BZ77	46
	1254	3320	BZ105	120
			BZ114	12
			BZ118	320
			BZ156	34
			BZ157	7.2
			BZ167	37
			BZ189	2.9

Core 228

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22803B			[redacted]	
			BZ105	100
			BZ114	11
			BZ118	290
			BZ126	1.1
			BZ156	29
			BZ157	8.7
22804B			BZ77	47
			BZ105	100
			BZ114	10
			BZ118	270
			BZ156	27
			BZ157	5.9

Core 229

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
22904A			BZ77	40
			BZ105	84
			BZ118	230
			BZ126	0.85
			BZ167	36
			BZ189	1.9
22905A			BZ77	59
			BZ105	120
			BZ114	12
			BZ118	330
			BZ156	31
			BZ157	8.2
			BZ167	47
			BZ189	2.4
22906A			BZ77	85
			BZ105	180
			BZ114	18
			BZ118	440
			BZ126	1.4
			BZ156	45
			BZ157	9.6
			BZ167	49
			BZ189	3.3

Core 231

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
23103A	1248	4280	BZ77	63
	1254	3110	BZ105	140
			BZ114	14
			BZ118	360
			BZ118	249
			[redacted]	
			BZ156	39
			BZ157	9.2
			BZ167	36
			BZ189	1.9
23104A			BZ77	79
			BZ105	190
			BZ114	20
			BZ118	480
			BZ126	0.8
			BZ156	51
			BZ157	12
			BZ167	54
			BZ189	2.4
23105A			BZ77	40
			BZ105	150
			BZ114	15
			BZ118	390
			BZ126	1.1
			BZ156	45
			[redacted]	
			BZ167	43
			BZ118	457
23106A				

Core 232

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
23204A			BZ156	24
			BZ157	5.3
			BZ167	31

Core 285

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
28502A			BZ118	310
28503A	1242	9580	BZ77	45
			BZ105	150
			BZ114	13
			BZ118	1290
			BZ118	410
			BZ126	2.6
			BZ156	42
			BZ157	11
			BZ167	42
			BZ189	2.8
28504A	1248	3870	BZ77	50
			BZ118	469
			BZ118	230
			BZ126	1.2
			BZ189	2.6
28505A	1248	3540	BZ77	100
			BZ105	130
			BZ114	13
			BZ118	370
			BZ126	1.2
			BZ156	28
			BZ157	6.2
			BZ167	38
			BZ189	2.8
28506A			BZ77	200
			BZ105	340
			BZ114	19
			BZ118	1300
			BZ126	4.8

Core 286

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
28603B	1248	3640	BZ77	42
			BZ105	120
			BZ114	10
			BZ118	340
			BZ126	1.2
			BZ156	34
			BZ157	8.9
			BZ167	34
			BZ189	2.6
28604B	1248	3920	BZ77	84
	1254	3110	BZ105	110
			BZ114	9.7
			BZ118	330
			BZ126	1.2
			BZ156	24
			BZ157	5.3
			BZ167	34
			BZ189	2.4
28605B	1248	15700	BZ77	2601
			BZ105	450
			BZ114	41
			BZ118	1100
			BZ126	3.2
			BZ156	38
			BZ157	8.5
			BZ167	34
			BZ189	5.9
28606B			BZ77	58
			BZ105	130
			BZ114	13
			BZ118	380
			[redacted]	
			BZ156	47
			BZ157	5.3
			BZ167	120
			[redacted]	

X: 08984X02, X13
L: ON=*, OFF=*REF*
P: PAGESET/DL
12/7/01 SYR-54-SDL GMS LAF
08984083/MRSA/08984GS3.DWG

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Benjamin Moore & Company

LOCATION: The Benjamin Moore & Company ("Benjamin Moore") site is located at 134 Lister Avenue, Newark, NJ. The site is located on the west/southwest bank of the Passaic River approximately two miles upstream from the southern boundary of the Passaic River Study Area.

OPERATIONS: Benjamin Moore operated at the site from 1925 to present. Benjamin Moore operated a paint manufacturing facility. Products include interior and exterior paints, varnishes and alkyd (an intermediate product used to manufacture water and oil based enamels).

DISCHARGE ROUTES: ***Via Storm Sewer System***

The City of Newark owned/maintained storm sewer system, commonly referred to as the Lockwood Street storm sewer, is a 66" diameter sewer that runs beneath Lister Avenue, parallel and adjacent to the Benjamin Moore property. In addition to the localized stormwater runoff from Lister Avenue, stormwater is also received from the Lockwood Street storm sewer. At the southeastern corner of Benjamin Moore's property, the Lister Avenue storm sewer turns to run in a northeastern path to the facility's eastern property boundary and consists of a 72" concrete pipe.

The second storm sewer (referred to herein as "outfall 001") consists of six branches that run within the facility in a parallel fashion from southwest to northeast and discharge into a common trunk that parallels the Passaic River. The common discharge from this storm sewer is a single outfall located in line with the northern corner of building no. 4A. Effluent from the two eastern branches flow to the facility's pump house prior to entering the common trunk and subsequently discharging to the Passaic River.

According to a 1984 NJDEP report, stormwater runoff from the facility historically passed through the facility's pump house to the city's 72" diameter storm sewer until an undetermined date when the city of Newark sealed Benjamin Moore's connection to the city storm sewer because the sewer was overloaded. This report also states that an on-site earthen retention basin located adjacent to the city's storm sewer and approximately 80' x 100' x 3' deep in size, was being used to collect stormwater runoff and a small amount of infiltration from the Passaic River during high tides. The earthen basin was reportedly on-site for approximately fifteen years, circa 1969.

Benjamin Moore & Company Continued...

DISCHARGE ROUTES: (Continued)

A 1973 NJDEP interoffice memo states that a visual inspection revealed two surface water runoff pipes, one 6" in diameter, the other 18" in diameter. It is unknown whether effluent from these pipes discharged directly into the Passaic River or into the Passaic River via the city storm sewer.

Via Sanitary Sewer

Benjamin Moore had a 6" sanitary sewer line that ran for a distance of approximately 660" beneath the property. Sometime from the 1960s to circa 1972/1973, Benjamin Moore disposed of latex washwater into the sanitary sewer system. During a period of time from the 1960s, waste water from a fume scrubber and a cleaning solution used to clean portable tanks was also discharged into the sanitary sewer. Industrial waste was discharged to the Passaic River, via the sanitary sewer, from at least 1967 to 1970 when both the sanitary and storm sewers beneath Lister Avenue were repaired and/or replaced.

SITE PCB SOURCES:

Benjamin Moore purchased Therminol from Monsanto. Therminol is a heat transfer oil which consists of Aroclor 1248. Benjamin Moore also purchased Aroclor 1254 and "5460" PCB products from Monsanto.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Montrose Chemical Company/Chris Craft

LOCATION: The Montrose Chemical Company site is located at 100 Lister Avenue, Newark, NJ. The site is bounded by industrial properties adjacent to the Passaic River on the north and by Lister Avenue to the south.

OPERATIONS: Montrose Chemical - (parent company is Chris Craft, Inc.) - operated at the site from 1943 to 1974. The site is currently being operated by Chemical Waste Management of New Jersey, Inc. - (previously known as SCA Chemical, Inc.) - as a hazardous waste transfer, storage, recovery and treatment facility.

Montrose Chemical manufactured a variety of chemical products at the site, including herbicides, pesticides, fuel and rubber additives, food and drug products and various chemical intermediates.

DISCHARGE ROUTES: **Direct Discharges:**
In an Affidavit from former employee Oscar Randall, it was reported that "gallons and gallons" of waste was dumped into the site sewers which led directly into the river. He stated that Montrose, and its successors, dumped waste from the time he arrived in 1952 until 1977 or 1978. Former Montrose Chemical employee Frank Charles corroborated this information. Former employee S.H. Koved stated that he believed the facility sewers led to Lister Avenue and assumed, from there, they led to the Passaic River. He recalled that the sewers received acidic waste from processes such as DDT manufacture and would routinely become corroded and collapse. He also recalled a series of interior and exterior facility trenches covered with grates into which wastes would be discharged which led to the sewer. Documentation which may be indicative of process-related discharges from the facility to the municipal storm sewer system is as follows:

- A 2/1/72 letter to the City of Newark from the PVSC indicates samples taken from catch basins on Lister Avenue near Montrose contained explosive vapors.

- A 12/8/77 letter from the City of Newark to PVSC discusses the presence of four sewers on the property: two 12" wooden sewers, one 12" clay pipe and one 24" cast iron sewer. This letter also noted "a portion of the surface water drainage on the site is

Montrose Chemical/Chris Craft Continued...

DISCHARGE ROUTES: (Continued)

routed to two 12" wooden sewers by open channels as depicted on the plans." "An inspection has revealed the presence of polluting material in the 12" storm line; the 12" line has therefore not been confirmed to be a separate storm sewer."

- A 1977 Industrial Sewer Connection permit, granted to the Earthline Company, who occupied the site at the time states "The known illegal cross connection between the storm sewer and sanitary sewer on Lister Avenue ... will be eliminated." "Any other illegal connection between the storm and sanitary sewers will be eliminated as quickly as possible when encountered.

- A check of the Lister Avenue storm sewer mapping diagram at the City of Newark's Engineering Office shows that waste entering the city storm sewer system near Montrose would flow east along Lister Avenue to the end of the street, where the line turns north and is routed through the Benjamin Moore property directly to an outfall at the Passaic River. Prior to 1972, this storm sewer flowed in the opposite direction to the Brown Street outfall at the Passaic River on the Sherwin Williams property.

Indirect Process Discharges:

- Drawings at the City of Newark's Engineering office show a sanitary sewer line on Lister Avenue as far back as 1899. Early diagrams show the line to be 4" in diameter, which would have been insufficient to convey process wastes of significant volume.

- According to the PVSC Brown Street Branch Interceptor Evaluation, the combined system in the site area discharged to a 24" section of the Brown Street Branch Interceptor. Wet weather overflow discharged through the Brown Street regulator to the Passaic River until the regulator was sealed in approximately 1970. (According to the PVSC Brown Street Interceptor Evaluation, sewer separation [storm from sanitary] projects in the area were completed between the 1930s and 1970s). Therefore, prior to approximately 1970, industrial wastewater and contaminated runoff was discharged to the Passaic River at least during wet weather overflow.

Montrose Chemical/Chris Craft Continued...

DISCHARGE ROUTES: (Continued)

On site Discharges:

Former Montrose employees acknowledged the occurrence of the following events at the facility:

- leaking underground storage tanks
- leaking trenches and sewer lines
- leakage of stored material and products
- general spillage and miscellaneous leaks in piping
- storage of waste material directly on ground surface

Onsite soil samples collected by Chemical Waste Management in the 1990s contain numerous hazardous substances that reflect the products and waste streams associated with Montrose's operations and corroborate the above.

Other:

Former employees also recall a number of occasions in which the site became flooded by the Passaic River, and also recall the existence of uncontrolled process releases at the facility.

SITE PCB SOURCES:

Aroclor 1248 at 25 ppm was found in soil samples from the Montrose Chemical site.

A reported 210 ppm of Aroclor 1260 was detected in samples from a storage tank at SCA Chemical, a subsequent site operator.

A reported 50 ppm of Aroclor 1260 was also detected in samples taken in the process sump system during the operation of the facility by SCA Chemical.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Thomasset Colors/Hilton Davis Company

LOCATION:

The Thomasset/Hilton Davis site is located at 120 Lister Avenue in Newark NJ. The site is a riverfront property located on the southern banks of the Passaic River as site study area river mile 2.1.

OPERATIONS:

The facility was originally operated by Thomasset Colors, Inc., as of approximately 1955. In 1957, Thomasset Colors was acquired and became a wholly-owned subsidiary of the Hilton Davis Company. Hilton Davis was a wholly-owned operating division of Sterling Drug Company since 1937, until Sterling Drug was in turn acquired by Eastman Kodak in 1988. However, Eastman Kodak sold the Hilton Davis operations sold to Plastics Manufacturing Corporation in 1989. Plastics Manufacturing Corporation then sold the Hilton Davis operations to the Freedom Chemical Company in 1993. As of 1998, Freedom Chemical and its Hilton Davis operations were acquired and merged into the BF Goodrich Company. The Hilton Davis operations in Newark were discontinued as of 1997.

The Thomasset/Hilton Davis facility has historically manufactured phthalocyanine blue pigments; phthalocyanine green pigments; transoxide pigments; and drug and cosmetic grade organic pigments.

DISCHARGE ROUTES:

Direct Process Discharges

Reportedly, as early as 1956, wastewaters generated from process equipment cleanings were historically discharged to the Passaic River directly from the Thomasset/Hilton Davis facility.

Further, information obtained from former employees supports that a "bypass mechanism" may have been installed at some time at the facility. This bypass mechanism reportedly allowed for facility employees to divert process wastewaters from the normal sanitary sewer system, and to instead discharge directly via a plant outfall to the Passaic River.

Indirect Municipal Sanitary Sewer Discharges

Prior to its closure in the early 1970's, the sanitary sewer line located along Lister Avenue is believed to have been routed into a downstream regulator mechanism located to the west of the facility, at the intersection of Lister Avenue and Brown Street. During periods of rain or other surcharge event, this former Brown Street regulator mechanism and combined sewer outfall ("CSO") would have served to bypass and discharge process wastewaters from the Thomasset/Hilton Davis facility directly into the Passaic River

Thomasset/Hilton Davis Continued ...

DISCHARGE ROUTES: (Continued)

Indirect Municipal Storm Sewer Discharges

Subsequent to the sealing of the Brown Street regulator and CSO in the early 1970s, it is believed that storm water from the site was collected and transported via a municipal storm sewer system along Lister Avenue. This Lister Avenue storm sewer, in turn, was routed to and discharged to the Passaic River via the Lockwood Street storm sewer outfall. As of 1970, a spill at the facility of flourescein dye, a process material, was documented to have discharged to the Passaic River via the Lockwood Street storm sewer.

Surface Run-off

The Thomasset/Hilton Davis site is located directly on the Passaic River. This riverfront location allows for the discharge of on-site contaminants to the Passaic River via stormwater, flooding and/or surface run-off transport mechanisms. Documentation obtained to-date indicates that site soils have been contaminated from past process and waste material storage areas, as well as from historical spills, leaks and process discharges.

SITE PCB SOURCES:

Sampling conducted in a transformer pad area at the Thomasset/Hilton Davis site detected Aroclor 1260 contamination at levels up to 1.44 ppm.

Of note, the manufacture of phthalocyanine blue and phthalocyanine green pigments, is an industrial process that reportedly leads to the inadvertent generation of PCBs. Thomasset/Hilton Davis is known to have manufactured phthalocyanine blue and phthalocyanine green pigments at the site throughout its tenure from 1955 until its closure in 1996/1997.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Sherwin Williams

LOCATION: The site address is 60 Lister Avenue, Newark, NJ, 07105. The property is bounded on the north by the Passaic River and is located at site study area river mile 2.3.

OPERATIONS: Operations at Sherwin Williams ("SW") were from approximately 1902 to approximately July of 1999. SW produced both interior and exterior paints (oil-based, solvent-based, latex and alkyd), varnishes, resins and colors. Since 1984, SW has only produced water-based latex paint. While SW denies that it produced DDT at this site, several publications and witness statements confirm that DDT was at least re-packaged at this facility.

DISCHARGE ROUTES: Discharge routes from the Sherwin Williams facility to the PRSA include:

- ***Sanitary Sewer Discharge Route***: The facility discharges to the sanitary sewer system operated by the City of Newark. Between the 1920's and 1970s, sanitary sewers were connected to the storm sewer at the site, and in turn were connected to regulators designed to divert the sanitary flow during peak flow conditions to the Brown Street CSO. These CSO connections were plugged sometime in the 1970's time period. Since that time, the Brown Street outfall has only drained storm water from the SW facility.

- ***Storm Sewer Route:*** All storm runoff at the facility discharges to the Brown Street storm sewer operated by the City of Newark. The storm sewer discharges directly into the Passaic River at the Brown Street outfall, but it is unknown how long the storm sewers have been in place. While SW never specifically states that it discharged any materials to the storm sewer, the connections between the sanitary sewer and the storm sewer from the 1920's to the 1970's allowed material to freely pass between the two sewer systems.

- ***Surface Runoff:*** Located adjacent to the Passaic River, all site surface runoff flows directly to the river. Over its many years of operations, the facility has been subjected to flooding which has drained to the river over the bulkhead.

Sherwin Williams Continued...

DISCHARGE ROUTES:
(Continued)

- *Spills*: There are several spills at the site which drained via the storm sewers to the Passaic River. Also, there is some evidence that spills occurred inside Bldg.#11 (manufacturing) which was approximately 3 feet from the bulkhead on the Passaic River. Spills of this nature had the potential to wash over the bulkhead directly to the river.

SITE PCB SOURCES: Monsanto PCB Sales records produced to the USEPA in the mid-1970's notes that SW purchased Aroclor Dist 5460-Low Color Hi Sol from Monsanto in 1970.

PCB PRP Locations and PCB Source Areas Along the Western Portion of Harrison Reach

Core 234

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
234048			BZ77	36
			BZ118	200
			BZ167	29
			BZ189	1.9
234058	1248	2850	BZ77	72
			BZ105	150
			BZ114	14
			BZ118	370
			BZ126	1.2
			BZ156	38
			BZ157	7
			BZ167	51
			BZ189	2.3
234068			BZ77	150
			BZ105	1250
			BZ114	131
			BZ118	850
			BZ126	2.2
			BZ156	80
			BZ157	13
			BZ167	58
			BZ189	4.2
234079	1248	7350	BZ118	369
	1254	3920		

Core 235

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
235024	1254	6120		
	1254	4050		
235044	1248	4770	BZ105	190
	1254	2780	BZ114	21
			BZ118	470
			BZ118	248
			BZ126	1.2
			BZ156	52
			BZ157	12
			BZ167	49
			BZ189	2
235064	1248	7470	BZ77	73
	1254	4600	BZ105	190
			BZ114	20
			BZ118	480
			BZ126	1.9
			BZ156	47
			BZ157	11
			BZ167	44
			BZ189	3.4

Core 237

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
23701A	1260	2180	BZ77	71
			BZ105	120
			BZ114	13
			BZ118	320
			BZ118	204
			BZ156	41
			BZ157	8.7
			BZ167	52
			BZ189	4.2
23702A	1248	2810	BZ77	90
	1260	1890	BZ105	170
			BZ114	18
			BZ118	477
			BZ118	420
			BZ126	1.1
			BZ156	47
			BZ157	9.8
			BZ167	59
			BZ189	2.7
23703A			BZ105	84
			BZ114	8.4
			BZ118	260
			BZ118	200
			BZ167	35

Core 238

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
23802A			BZ167	30
			BZ189	2.3
23803A	1248	4160	BZ77	190
	1254	3390	BZ105	1450
			BZ114	142
			BZ118	3000
			BZ118	286
			BZ126	1.6
			BZ156	1101
			BZ157	117
			BZ167	140
			BZ189	7.8
23804A	1248	2550	BZ77	78
	1254	2490	BZ105	1250
			BZ114	257
			BZ118	2990
			BZ126	1.2
			BZ156	831
			BZ157	5.8
			BZ167	215
			BZ189	1.9

Core 241

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
24102A	1260	303		
24103A			BZ77	57
			BZ105	110
			BZ114	11
			BZ118	300
			BZ156	29
			BZ157	5.6
			BZ167	40
			BZ189	2.8
24104A	1248	2580	BZ77	69
	1254	2130	BZ105	130
			BZ114	13
			BZ118	427
			BZ118	340
			BZ126	1.1
			BZ156	36
			BZ157	7.6
			BZ167	38
			BZ189	1.9

Core 242

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
24204A	1248	3060	BZ77	44
			BZ105	120
			BZ114	9.6
			BZ118	310
			BZ156	34
			BZ157	6.8
			BZ167	38
			BZ189	2.8

Core 244

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
24401A	1248	2090		
	1254	2070		
24403A	1260	528		
24404A	1260	713	BZ105	120
			BZ114	13
			BZ118	340
			BZ156	40
			BZ157	8
			BZ167	36
			BZ189	1.9

Core 245

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
245028			BZ167	33
245038	1248	3170	BZ105	110
			BZ114	12
			BZ118	300
			BZ118	288
			BZ156	42
			BZ157	9.7
			BZ167	88
245048	1248	6480	BZ77	40
			BZ105	150
			BZ114	15
			BZ118	421
			BZ118	380
			BZ156	52
			BZ157	10
			BZ167	74
245058	1248	4470	BZ105	110
	1254	2780	BZ114	10
			BZ118	417
			BZ118	280
			BZ156	36
			BZ157	5.9
			BZ167	46
245068			BZ167	30

Core 289

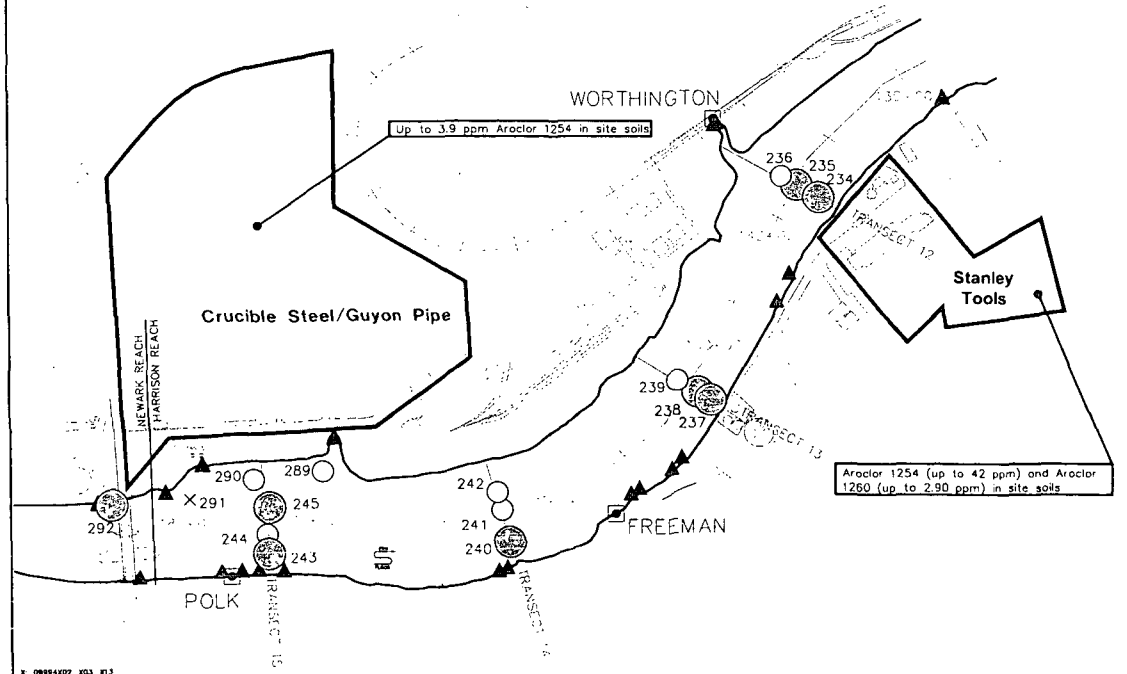
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
28902A	1248	2800	BZ77	74
	1254	2300	BZ105	93
			BZ114	8.8
			BZ118	260
			BZ156	24
			BZ157	5.3
			BZ189	2

Core 290

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
29001B			BZ126	1.5
			BZ189	1.9
290028			BZ77	41

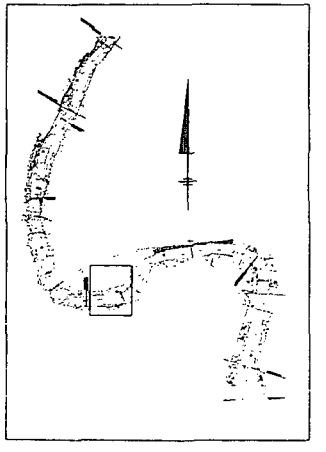
Core 292

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
29205C	1248	2770	BZ77	83
	1254	2210	BZ105	99
			BZ114	8.7
			BZ118	280
			BZ126	0.99
			BZ156	27
			BZ157	7.2
29206C	1248	3590	BZ77	81
	1254	2540	BZ105	130
			BZ114	11
			BZ118	360
			BZ126	1.1
			BZ156	33
			BZ157	8



LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- 208 — RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- TRANSECT 8 — 1995 RI SEDIMENT SAMPLING TRANSECT
- 230+00 — USACE RIVER STATIONING



X: 09994X02, X03, X13
P: PAGESET/DL
12/8/01 SYR-54-SDL CMS LAF
09994083/RMSA/09994G40.DWG

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Stanley Tools

LOCATION: The site of the Stanley Tools facility is located at 140 Chapel Street, Newark, NJ. The site is within 400 feet of the Passaic River. It is located on the southern banks of the Passaic River at site study area river mile 2.6.

OPERATIONS: Stanley Tools and its predecessors operated at this facility from approximately 1875 through 1985. Stanley Tools manufactured hand tools at the site. Products were forged, machined, ground, heat-treated, painted, polished, assembled and shipped. Principle products were hammers and bars.

DISCHARGE ROUTES: Prior to 1975, Stanley Tools reportedly discharged all industrial and sanitary waste to a PVSC combined sewer system. According to the PVSC Brown Street Branch Interceptor Evaluation, the combined system in the site area discharged to a 24" section of the Brown Street Branch Interceptor. This discharge probably occurred through an 8" tile and/or 15" concrete line that ran under Chapel Street, north to Lister Avenue, and then east to connect to the Brown Street Branch Interceptor at Brown Street, as shown on city sewer maps. Wet weather overflow discharged through the Brown Street regulator to the Passaic River until the regulator was sealed in approximately 1970. (According to the PVSC Brown Street Interceptor Evaluation, sewer separation [storm from sanitary] projects in the area were completed between the 1930s and 1970s). Therefore, prior to approximately 1970, Stanley's industrial wastewater and contaminated runoff was discharged to the Passaic River during wet weather overflow.

Evidence of discharges to the combined sewer, prior to 1970, is as follows:

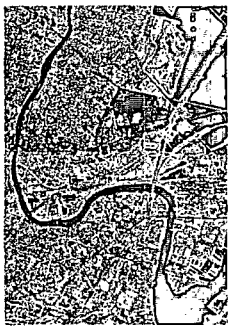
- A groundwater contaminant plume consisting of Tetrachloroethene (including other degradation products) was attributed to the deterioration of a clay pipe formerly used as the combined sewer discharging to the Lister Avenue line described above.
- Stanley's process wastewater (in 1980) reportedly contained arsenic, cadmium, iron, zinc and phenol.
- Surface runoff to the former combined sewer occurred via a catch basin located east of building 20A on the eastern parcel.

Stanley Tools Continued...

SITE PCB SOURCES: Known PCB contamination at the Stanley Tools site includes:

39.4 ppm Aroclor 1254 in soils outside northeast corner of Bldg.1
42 ppm Aroclor 1254 in "TIC fraction" of soils at transformer pad
1.8 ppm Aroclor 1254 in wood chips from interior Bldg. 21 floor
2.90 ppm Aroclor 1260 in site soils
0.96 ppm total PCBs in soil beneath facility sump and clay pipe

PRESENTATION ON PCB PRP SOURCES IN THE PRSA



Crucible Steel and Guyon Pipe Complex

LOCATION:

The Crucible Steel and Guyon Pipe Complex is located at 1000 South Fourth Street, Harrison, NJ, 07029. The complex is located on the eastern bank of the Passaic River at site study area river mile 3.2.

OPERATIONS:

Crucible occupied the site from circa 1900 through 1974. Crucible operated a steel and ordnance plant during WWI & WWII and manufactured shells, gun barrels, bomb rockets, periscopes and tool steel. After WWII, Crucible manufactured cold finished strip steel, wire rods, cast magnets & high alloy castings for tools.

Crucible historically sold or leased parcels of the site to other operations, including: (1) Charles F. Guyon, Inc./Guyon Pipe; (2) Miele Bros. Trucking Co.; (3) Azco Steel Company; (4) Gabest, Inc.; (5) Prince Packaging Products, Inc.; (6) Joseph Supor Trucking Co.; (7) Harris and Sons Steel Company; (8) Harrison Warehouse Company; (9) Rose Ribbon and Carbon Manufacturing Co., Inc.; (10) Admiral Steel Equipment Co., Inc.; (11) Super Steel Industries, Inc.; and (12) Miles A. Galin.

Guyon reportedly began leasing a portion of the property in 1947. Guyon produced pipes, pipe fittings and valves at the site through circa 1988.

DISCHARGE ROUTES:

Facility Storm Drainage System:

The facility was reportedly served by an underground storm drainage system, consisting of a long central drainage pipe/main that discharged to the Passaic River. The drainage system reportedly included numerous facility manholes that collected surface water. These manholes were routed to a series of underground lateral pipes which conveyed the water collected in the manholes to the central drainage main and ultimately to the Passaic River.

Two outfalls to the PRSA have been identified at the site including: (1) one 6-foot by 6-foot box culvert, located east of South Fourth Street, Harrison; and (2) one 12-inch storm and cooling water sewer, also located east of South Fourth Street.

Crucible Steel and Guyon Pipe Continued...

DISCHARGE ROUTES: (Continued)

Based on affidavits of former Crucible employees, several waste generation sources within the facility potentially discharged to the storm drainage system that include the following:

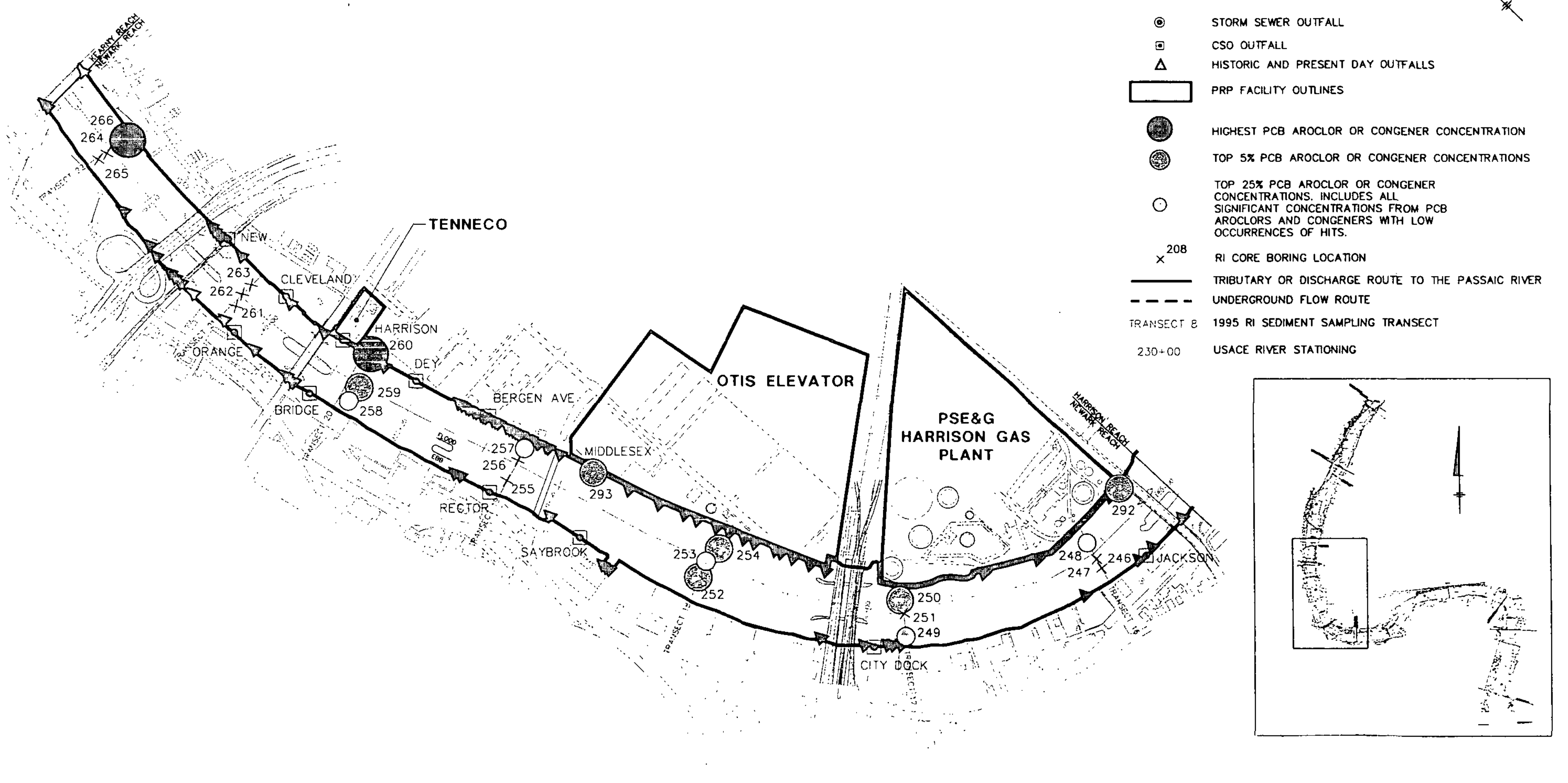
- Prior to 1969, during the summer months, Crucible spread spent rolling oil upon the ground in its plant area;
- Crucible employees had been steam cleaning mobil equipment in the vicinity of some manholes;
- Crucible employees were dumping waste oil into a pit and this pit was near a surface drain;
- It was found that a pump employed in a hood annealing operation was discharging oil into a pit.

SITE PCB SOURCES:

Aroclor 1254 (3.8 ppm) was detected in site soil at the Crucible complex. Aroclor 1254 (1.0 ppm) was also detected in sandblasting grit sampled from the Guyon operations.

Newark Reach

PCB PRP Locations and PCB Source Areas in Newark Reach of the PRSA



X 09994X02 X13
P: PAGESET/DL
12/7/01 SYR-54-SDL GMS LAF
09994063/PRSA/09994C27.DWG

PCB PRP Locations and PCB Source Areas Along Newark Reach Eastern Riverbank

Core 248

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
24803A	1248	3750	BZ77	91
	1254	3440	BZ105	170
			BZ114	17
			BZ118	430
			BZ118	298
			BZ126	1.5
			BZ156	47
			BZ157	10
			BZ167	44
			BZ189	2.4

Core 251

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
251010				
251038			BZ77	37
			BZ105	88
			BZ114	8.9
			BZ118	240
			BZ156	28
			BZ157	5.2
			BZ167	32
			BZ189	3.3
251048	1248	5390	BZ77	64
	1254	2990	BZ105	170
			BZ114	17
			BZ118	400
			BZ118	283
			BZ156	41
			BZ157	9.2
			BZ167	37
			BZ189	3.1
251058	1248	4110	BZ77	48
	1254	2240	BZ105	130
			BZ114	14
			BZ118	320
			BZ118	215
			BZ126	1
			BZ156	32
			BZ157	6.8
			BZ167	30
			BZ189	2.7

Core 253

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
25303A	1260	495		
25304A	1260	827		

Core 254

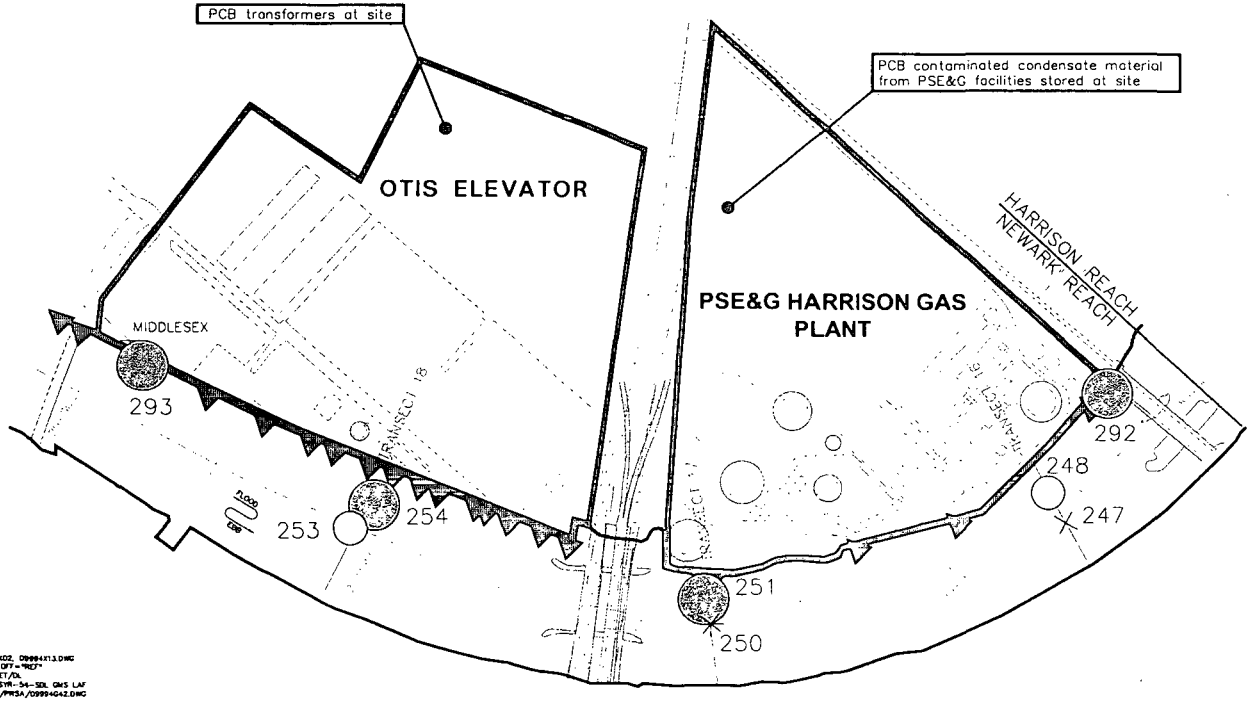
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
25401A	1260	685	BZ156	41
			BZ167	48
			BZ189	12
25405A			BZ77	39
			BZ105	100
			BZ114	10
			BZ118	260
			BZ156	26
			BZ157	5.5
			BZ189	2

Core 292

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
29205C	1248	2770	BZ77	83
	1254	2210	BZ105	99
			BZ114	8.7
			BZ118	290
			BZ126	0.99
			BZ156	27
			BZ157	7.2
29206C	1248	3400	BZ77	81
	1254	2500	BZ105	130
			BZ114	11
			BZ118	360
			BZ126	1.1
			BZ156	33
			BZ157	8

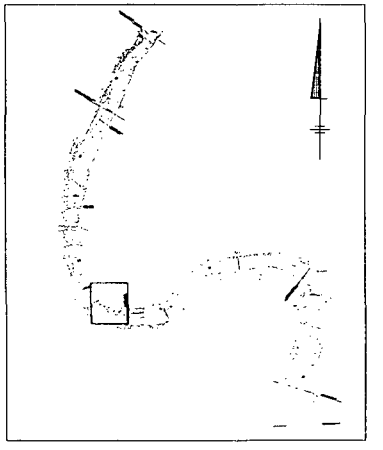
Core 293

Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
29301A			BZ156	72
			BZ167	36

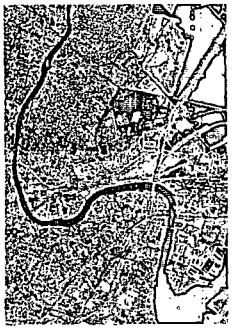


LEGEND:

- TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- 208 — RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- 1995 RI SEDIMENT SAMPLING TRANSECT
- USACE RIVER STATIONING



PRESENTATION ON PCB PRP SOURCES IN THE PRSA



Public Service Electric & Gas (PSE&G)
Harrison Gas Plant

LOCATION:

The PSE&G Harrison Gas Plant is located at the foot of South 4th Street in Harrison, NJ. The site is located on the bank of the Passaic River at site study area river mile 3.4.

OPERATIONS:

PSE&G has owned and operated at the Harrison Gas Plant site from approximately 1905 to present. From 1905 to 1906, the facility was reportedly used as an oil and gas storage area. From 1926 to present, the plant manufactured gas utilizing various compounds and processes.

From 1926 to 1954 carbureted water gas sets containing coke (coal) and carbureted No. 6 fuel oil were used to produce gas. In 1950, natural gas was used in place of the No. 6 fuel oil in this coal gasification process. From approximately 1954 to 1963, the plant manufactured gas via catalytically cracked reformed natural gas and kerosene.

Since 1965 the Harrison Gas Plant's primary function was to act as a metering and distribution point for pipelined natural gas. The Harrison Gas Plant also produced oil gas and liquefied petroleum gas-air mixture to supplement natural gas during the peak demand winter months. For the time period from 1973 to 1980, a natural gas generation facility was in operation at the Harrison site which utilized naphtha as a feedstock. That facility was used to supplement PSE&G's supplies of gas for distribution.

DISCHARGE ROUTES:

Process Wastewater Discharges: Process waste water from the plant was discharged directly to the Passaic River until January 1979, at which time effluent was diverted to the Passaic Valley Sewage Commissioner's (PVSC) sewer system. These direct discharges have historically included:

- Tarry water effluent from the filter house;
- Effluent from the purification sedimentation basin;
- Boiler water blow down;
- Overflow water from the ash settling pit;
- Steam condensate from various processes;
- Non-contact cooling water from various processes;
- Site storm water.

Treatment techniques utilized onsite were historically ineffective, resulting in the discharge of significant quantities of hazardous substances while this facility was in operation.

PSE&G Harrison Gas Plant Continued ...

DISCHARGE ROUTES: (Continued)

Cooling Water Discharges: River water was taken in from two intake pipes and was used for cooling in gas condensers and in barometric condensers. The cooling water was discharged back to the river.

Surface Run-off: The PSE&G Harrison Gas Plant is located directly on the Passaic River. The riverfront location allows for the transport of on-site contaminants to the Passaic River via stormwater, flooding and surface run-off. Documentation states that site soil is significantly contaminated due to past storage areas and potential historical spills/leaks.

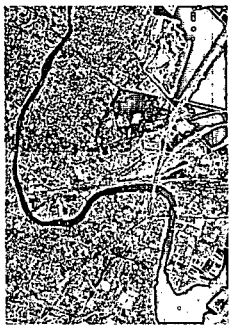
Testimony given by former PSE&G employees in unrelated civil matters state that tar/oil waste was dumped into open dirt pits and occasionally spilled or leaked onto site grounds. It was further documented in 1994 that seepage of an unknown substance into the Passaic River was occurring from the site's riverbank, and that the seepage resulted in a "sheen" on the river.

SITE PCB SOURCES:

PSE&G reported that PCB contaminated condensate material - collected from PSE&G's gas transmission and pipeline system, as well as from other PSE&G facilities - was stored/stockpiled at the Harrison Gas Plant site.

PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Otis Elevator Company



LOCATION: The Otis Elevator site is located at 1000 First Street, Harrison, NJ. The site is located on the east bank of the Passaic River at site study area river mile 4.0.

OPERATIONS: Otis Elevator operated at the site from 1910 through 1980. The company manufactured and assembled hoisting machines, structural hatchway material, platforms, counterweights, passenger and freight cabs, and gates. Site operations included a painting process that consisted of a complete paint finishing system. The paint finishing system consisted of spray booths and drying ovens. In 1928, an Oil Products building was completed at the site and included a central heating plant and facilities for cold storage handling of highly explosive powdered fuel.

DISCHARGE ROUTES: Discharge mechanisms to transport PCBs and other hazardous substances from the Otis Elevator site to the PRSA include:

Direct Discharge Route – undated NJDEP ECRA environmental concerns tracking sheet for Intrex Corp. (the subsequent occupant of the Otis facility) indicates that from 1940-1983, the Otis Elevator facility was not connected to the PVSC. According to that document, all sanitary waste, floor drains, boiler blow down, onsite sumps and several paint drains discharged directly to the Passaic River Study Area. In 1969 the New Jersey Department of Health issued Otis Elevator a cease and desist order enjoining the discharge of industrial wastes into the Passaic River.

Storm Sewers – 1980 PVSC application indicates four storm sewer lines discharging. Undated ECRA Environmental Concerns Tracking Sheet indicates, "all storm drains to the Passaic River." The same document also states that the NE loading dock had a drain to the river which was sealed in 1985.

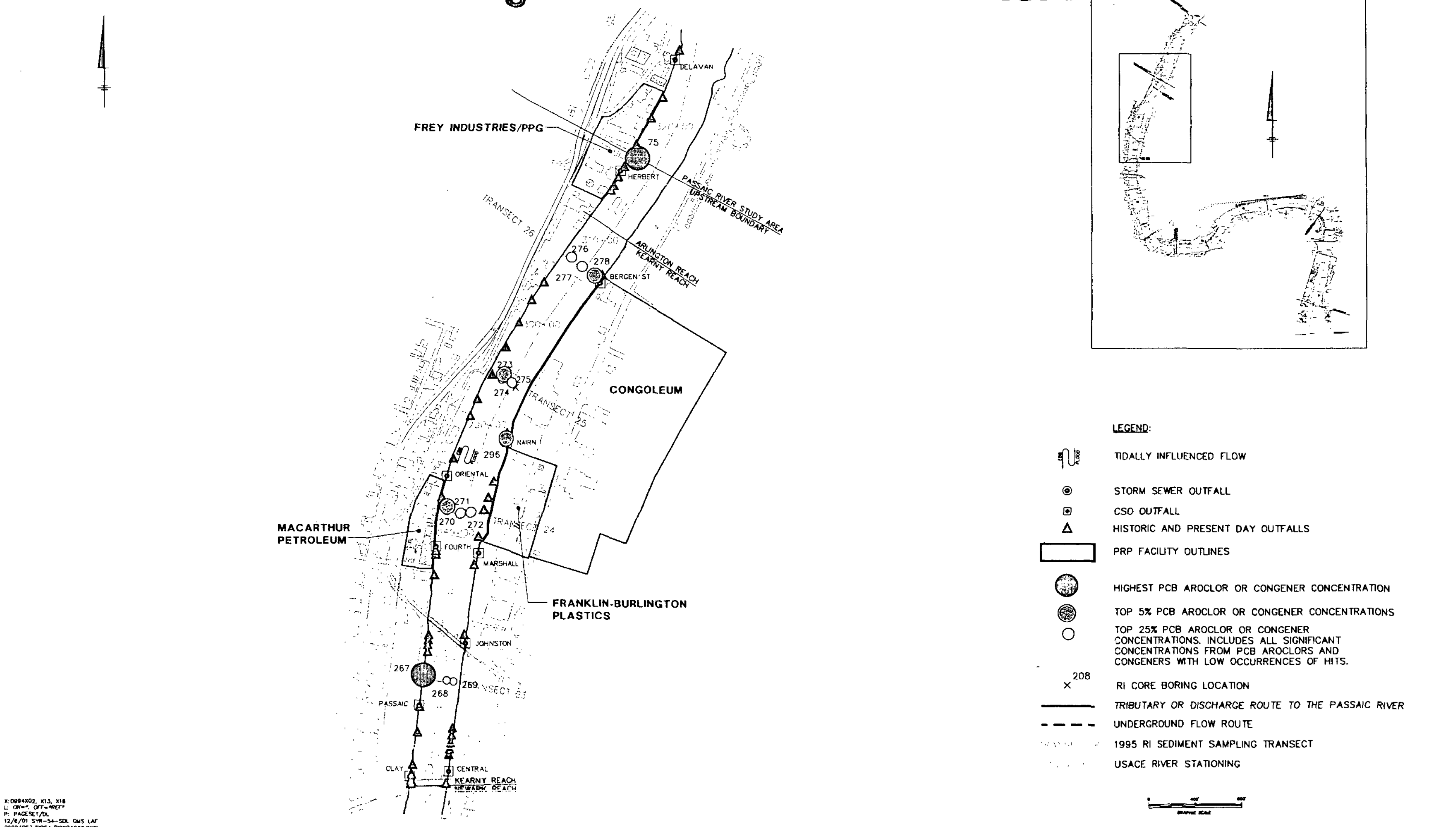
Sanitary Sewer – In a 1980 PVSC Sewer Connection application, Otis Elevator indicated that it discharged 48,000 gallons of industrial waste per day.

Surface Run-off, Flooding and Spill Events – a 1970 memo from NJDOH referred to pollution of the river from an on-site scrap metal area entering the river. The facility is located directly on the bank of Passaic River.

SITE PCB SOURCES: Sampling of transformers at the site is known to have detected PCBs below 50 ppm.

Kearny & Arlington
Reaches

PCB PRP Locations and PCB Source Areas in Kearny and Arlington Reaches of the PRSA



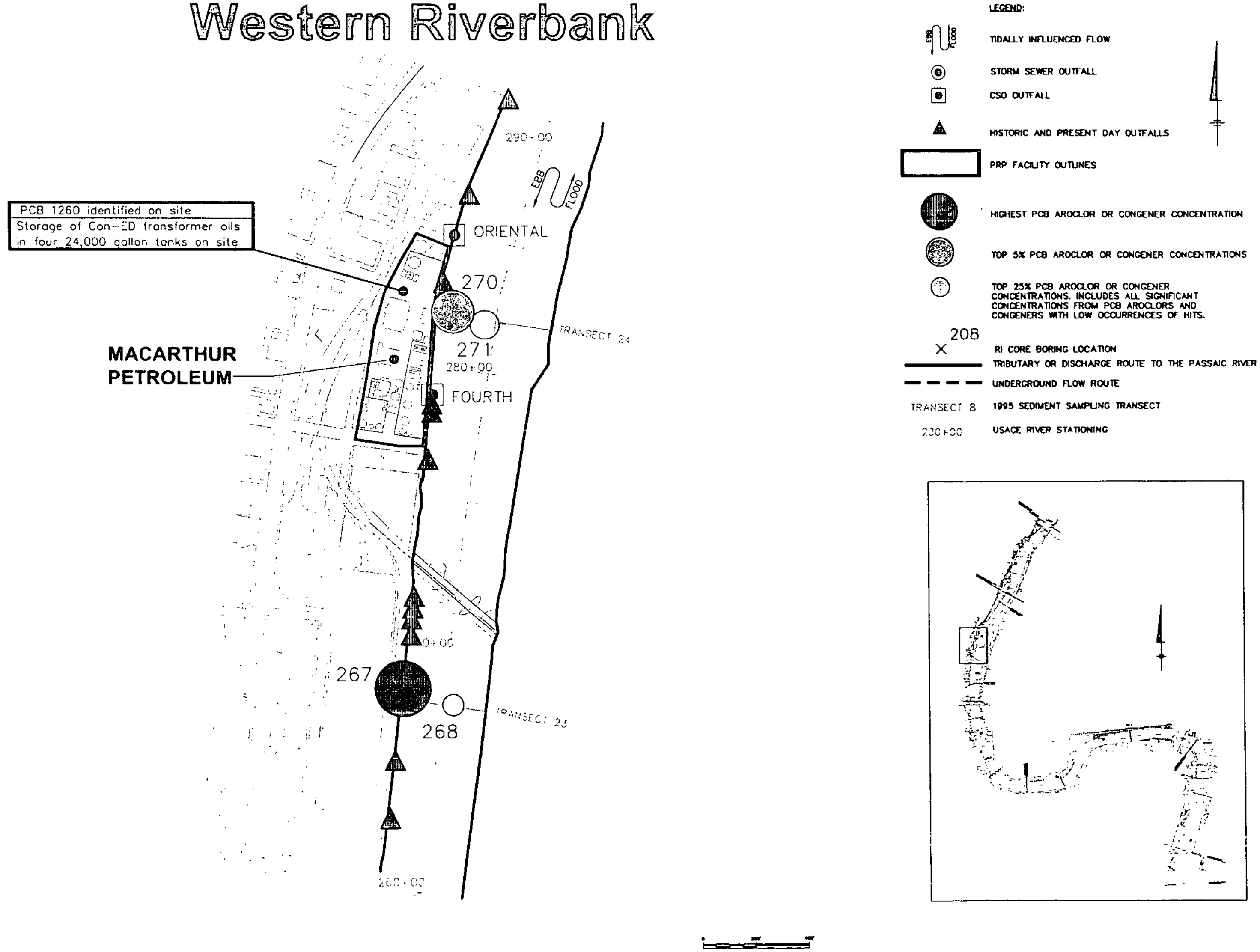
PCB PRP Locations and PCB Source Areas Along Kearny Reach
Western Riverbank

Core 267				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
26701A	[illegible]	[illegible]	BZ77	63
			BZ114	10
			BZ118	848
			BZ118	240
26702A	1242	5450	BZ118	284
	1254	2430		
26703A	1242	809		

Core 268				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
26802B			BZ77	45
26803B			BZ77	40

Core 270				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27001A			BZ189	4.1
27002A	1242	6150	BZ105	94
	1254	3660	BZ114	9.8
			BZ118	250
			BZ156	32
			BZ157	6.2
			BZ167	42
			BZ189	2.9
27003A	1260	3120	BZ77	63
			BZ105	83
			BZ114	9.3
			BZ118	250
			BZ118	247
			BZ156	29
			BZ167	34
			BZ189	4.2
27004A	1248	7830	BZ77	93
	1254	6520	BZ105	200
			BZ114	21
			BZ118	470
			BZ118	321
			BZ126	1.6
			BZ156	44
			BZ157	8.7
			BZ167	61
			BZ189	2.2
27006A	1248	8460	BZ77	140
	1254	5940	BZ105	270
			BZ114	28
			BZ118	640
			BZ118	480
			BZ126	1.4
			BZ156	64
			BZ157	12
			BZ167	83
			BZ189	2.6

Core 271				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27102A	1260	1020		
27103A	1254	2080	BZ167	30
27104A	1248	4860	BZ77	59
	1254	3560	BZ105	120
			BZ114	12
			BZ118	330
			BZ118	289
			BZ126	1.3
			BZ156	31
			BZ157	6.2
			BZ167	44



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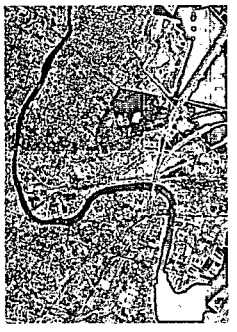
09994063/PRSA/09994G37.DWG

PRESENTATION ON PCB PRP SOURCES IN THE PRSA



MacArthur Petroleum & Solvent Co. / W.A.S. Terminals Corp.

LOCATION:

The MacArthur Petroleum & Solvent Co. / W.A.S. Terminals Corp. site is located at 126 – 210 Passaic Street in Newark, NJ. It is located on the western bank of the Passaic River at river mile 5.4. Operations at this site began in 1966.

OPERATIONS:

MacArthur and its four subsidiaries (JETGO Auto Products, MacArthur Packaging Co., W.A.S. Terminals Corp. and Carybrooke Chemical Co., Inc.) packaged, warehoused and distributed chemicals, solvents, motor oil and antifreeze. The facility maintained a total of 55 storage tanks, ranging in capacity from 2,500 to 636,000 gallons each. Product was delivered / shipped by barge and tank truck. Some blending of ethylene glycol and thinners were performed onsite. MacArthur was a regulated hazardous waste generator, EPA ID#NJD 011 371 580.

MacArthur has a significant history of enforcement actions and issues involving management of waste oil and waste oil mixtures. Through the early 90's, MacArthur was cited numerous times for violations by the City of Newark Fire Department. In March of 1991, MacArthur was issued an Administrative Order and Notice of Civil Administrative Penalty Assessment by NJDEP for various manifest, storage and permitting violations. In 1993, the state Department of Criminal Justice executed a search warrant at W.A.S. relative to a leased storage tank utilized in a scheme to illegally market waste oil - containing PCBs – as fuel oil. W.A.S. was alleged to have accepted the oil for treatment at the facility as part of the scheme, only to later transfer the waste oil to a terminal in NY where it was blended and resold as fuel oil. MacArthur is also a PRP at several NJ and NY NPL and state-lead landfill sites.

MacArthur filed for Chapter 11 bankruptcy reorganization in 1991, and was approved in 1994. MacArthur subsequently discontinued operations, and selected assets were acquired by Houghton Chemical.

DISCHARGE ROUTES:

Discharge routes from the site include the following:

1. Facility storm drains.
2. Contaminated surface run-off , spills, flooding, etc.
3. Various manholes, troughs and shafts identified during site inspections by NJDEP – disposition not identified.

MacArthur Petroleum & Solvent Co. / W.A.S. Terminals Continued...

SITE PCB SOURCES:

- PCB 1260 identified in waste-oil tank contents (1993).
- On-site handling and storage (4- 24,000 gallon tanks) of waste transformer oil from Con Edison, starting in at least 1988. In 1991, MacArthur was ordered by the City of Newark to provide laboratory analysis indicating PCB content of this transformer oil.

PCB PRP Locations and PCB Source Areas Along Kearny Reach Eastern Riverbank

Core 271				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27102A	1260	1020		
27103A	1254	2080	BZ167	30
27104A	1248	4860	BZ77	59
	1254	3560	BZ105	120
			BZ114	12
			BZ118	330
			BZ118	289
			BZ126	1.3
			BZ156	31
			BZ157	6.2
			BZ167	44

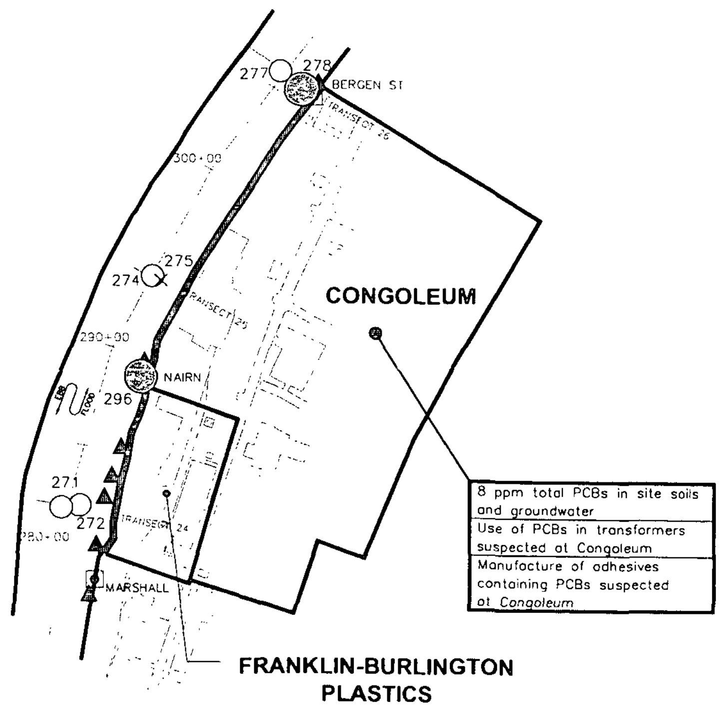
Core 272				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27204A	1254	2530	BZ77	71
			BZ105	100
			BZ114	8.9
			BZ118	260
			BZ118	250
			BZ156	26
			BZ157	5.6
			BZ167	40
			BZ189	2.1

Core 274				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27402A	1248	2510		

Core 277				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27701B	1260	1250		

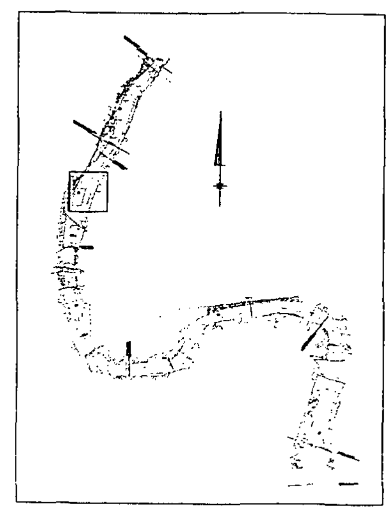
Core 278				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
27802B			BZ77	41
			BZ118	200
27803B	1248	6720	BZ77	140
	1254	3680	BZ105	240
			BZ114	24
			BZ118	610
			BZ118	298
			BZ126	1.4
			BZ156	54
			BZ157	11
			BZ187	67
			BZ189	4.7
27804B	1248	4530	BZ77	81
	1254	2950	BZ105	180
			BZ114	19
			BZ118	480
			BZ118	279
			BZ126	1.4
			BZ156	46
			BZ157	9.2
			BZ167	54
			BZ189	3.8
27805B	1248	3430	BZ77	56
	1254	2530	BZ105	110
			BZ114	11
			BZ118	310
			BZ126	1.2
			BZ156	30
			BZ157	5.8
			BZ167	39
			BZ169	0.47
			BZ189	2.5

Core 296				
Sample	Aroclor	Conc. (ppb)	Congener	Conc. (ppb)
29604B	1248	8770	BZ105	93
	1254	10000	BZ118	390
			BZ156	38
			BZ157	8.1
			BZ167	48
			BZ189	2.6
29605B	1248	4300	BZ77	88
	1254	3430	BZ105	120
			BZ114	11
			BZ118	350
			BZ126	1.1
			BZ156	32
			BZ157	6.7
			BZ167	34
			BZ189	2
29606B	1248	7390	BZ77	150
	1254	5100	BZ105	230
			BZ114	21
			BZ118	560
			BZ126	1.6
			BZ156	48
			BZ157	11
			BZ167	41
			BZ189	3



LEGEND:

- EBB / FLOOD — TIDALLY INFLUENCED FLOW
- STORM SEWER OUTFALL
- CSO OUTFALL
- HISTORIC AND PRESENT DAY OUTFALLS
- PRP FACILITY OUTLINES
- HIGHEST PCB AROCLOR OR CONGENER CONCENTRATION
- TOP 5% PCB AROCLOR OR CONGENER CONCENTRATIONS
- TOP 25% PCB AROCLOR OR CONGENER CONCENTRATIONS. INCLUDES ALL SIGNIFICANT CONCENTRATIONS FROM PCB AROCLORS AND CONGENERS WITH LOW OCCURRENCES OF HITS.
- 208 × — RI CORE BORING LOCATION
- TRIBUTARY OR DISCHARGE ROUTE TO THE PASSAIC RIVER
- UNDERGROUND FLOW ROUTE
- TRANSECT 8 — 1995 RI SEDIMENT SAMPLING TRANSECT
- 230+00 — USACE RIVER STATIONING



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P: PAGESET/DL
12/6/01 SYR-54-SDL GMS LAF
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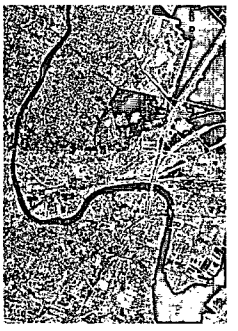
PRESENTATION ON PCB PRP SOURCES IN THE PRSA

Congoleum Corporation and Franklin Plastics



LOCATION:

The Congoleum Corporation site was located at 195 Belgrove Drive, Kearny, NJ. The site is located on the east bank of the Passaic River at site study area river mile 5.4.

Franklin Burlington Plastics, Inc. ("Franklin Plastics") - with an address of 113 Passaic Avenue, Kearny, NJ – now operates in the former Congoleum facility's Asphalt Tile Plant Bldg. # 115. Franklin Plastics is located on the east bank of the Passaic River at site study area river mile 4.9.

OPERATIONS:

The Congoleum facility was constructed in 1886 and production began in 1888. Most production at Congoleum ceased in 1983 and the facility closed in 1988. Congoleum manufactured linoleum, vinyl plastics, adhesives and tile cements. During WW II, it was reported that 75% of the facility's operations were centered on the manufacture of artillery, camouflage netting and support materials for the armed forces.

Fanklin Plastics, which has operated at the Kearny site from 1976 to the present, is a compounder of polyvinyl chloride (PVC) pellets. Plastic resin (solid or powder form) is received at the facility and pigments and plasticizer are added to customer specification. The PVC pellets are sold to customers for conversion into end products.

DISCHARGE ROUTES:

Discharge routes from the Congoleum and Franklin Plastics site to the PRSA include:

Discharge via Plants' Direct Outfalls

As of circa 1921, an 8-inch direct discharge line to the Passaic River is documented to have been located at Mill #23 in the northwestern section of the facility.

A sump and 8-inch outfall to the Passaic River is documented as being in place at the Congoleum facility's Asphalt Tile Plant Bldg. # 115. Internal drains in this plant were reported to be tied into this sump and outfall line. Wash waters from Congoleum's machine cleaning operations in Building # 115 were discharged into the drains at the site of the building. Process wastewater discharges would likely contain asbestos, kerosene, Varsol (mineral spirits) cement/glue and pigments.

Congoleum and Franklin Plastics Continued...

DISCHARGE ROUTES: (Continued)

The current Franklin Plastics operation is permitted to utilize the sump and 8-inch outfall in the former Bldg # 115 to discharge noncontact cooling water from this 8-inch outfall to the Passaic River a under NJPDES permit. Sampling of the sumps conducted during Franklin's operation indicate the presence of numerous hazardous substances in the wastewater.

Discharge via CSO System

Process wastewaters from the facility were historically transported via three combined sewer districts in the PVSC treatment system, specifically the Bergen Avenue CSO District, the Nairn Avenue CSO District and the Marshall Street CSO District.

Prior to their connection to the PVSC system and during wet weather, regulator malfunction and /or surcharge events, overflows of process wastewaters were diverted to the Passaic River. PVSC documentation from 1928, 1947 and again in 1949 shows that varying amounts of process wastewaters were overflowing to the Passaic River due to poor operating conditions in the Town of Kearny's municipal combined sewer system.

Storm and Surface Run-off

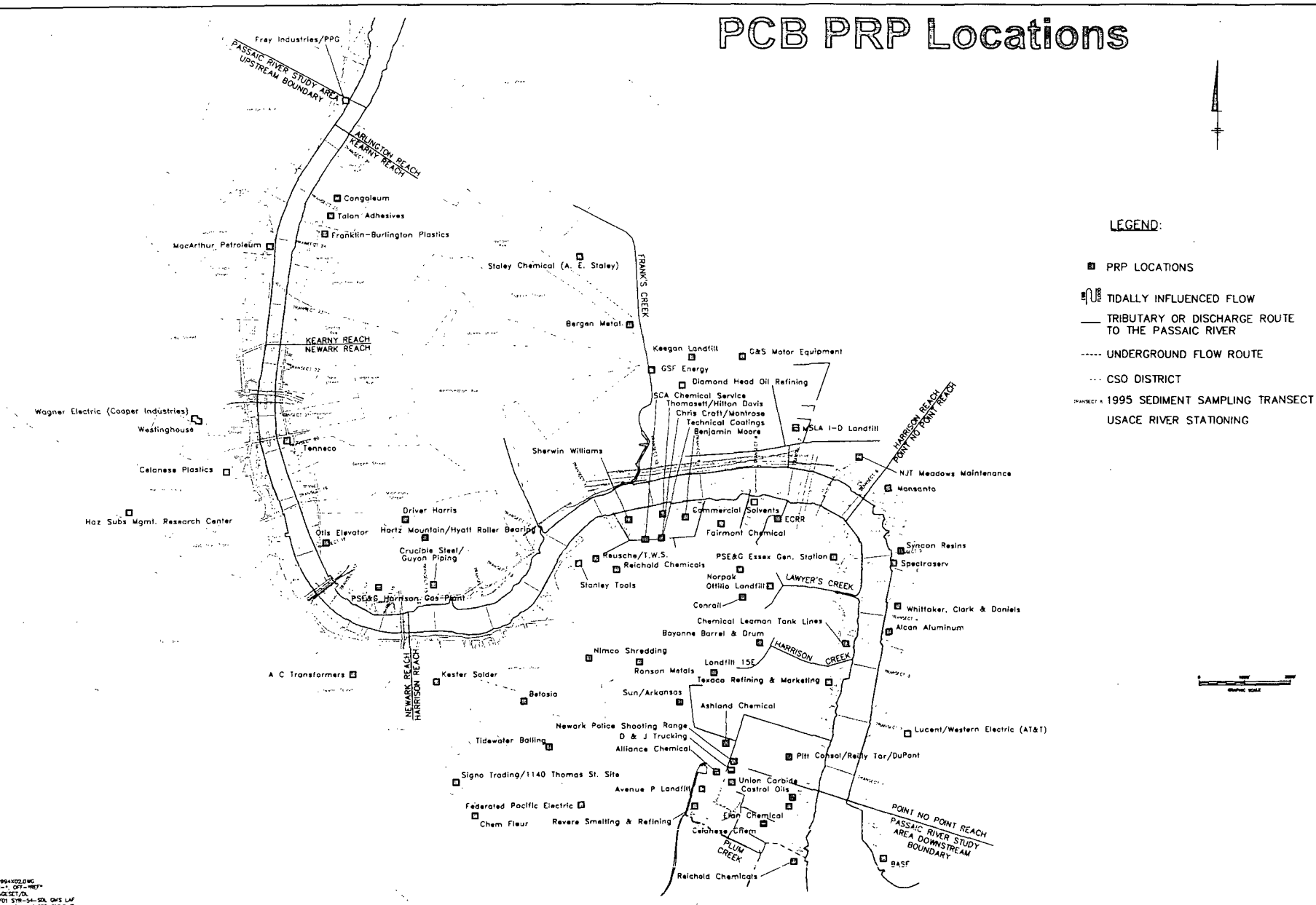
The location of the facility directly on the Passaic River allows for the transport of PCBs and other hazardous materials via surface run-off, flooding and via storm sewers. Storm drains at the Franklin Plastics facility are known to drain into the Passaic River. In 1990 they were sampled and found to contain hazardous substances used/produced at the Franklin Plastics site.

SITE PCB SOURCES:

Total PCBs (8 ppm) were detected in site soils, and Aroclor 1242 (15 ppb) was detected in groundwater at Franklin Plastics. PCB sampling and data has not been obtained to-date on the remaining portions of the Congoleum facility.

PCBs are suspected as having been utilized by Congoleum in transformers at the site, as evidenced by its detection in groundwater near Congoleum's former Building 115. PCBs may also have been used and/or produced during Congoleum's known manufacture of adhesives at the site.

PCB PRP Locations



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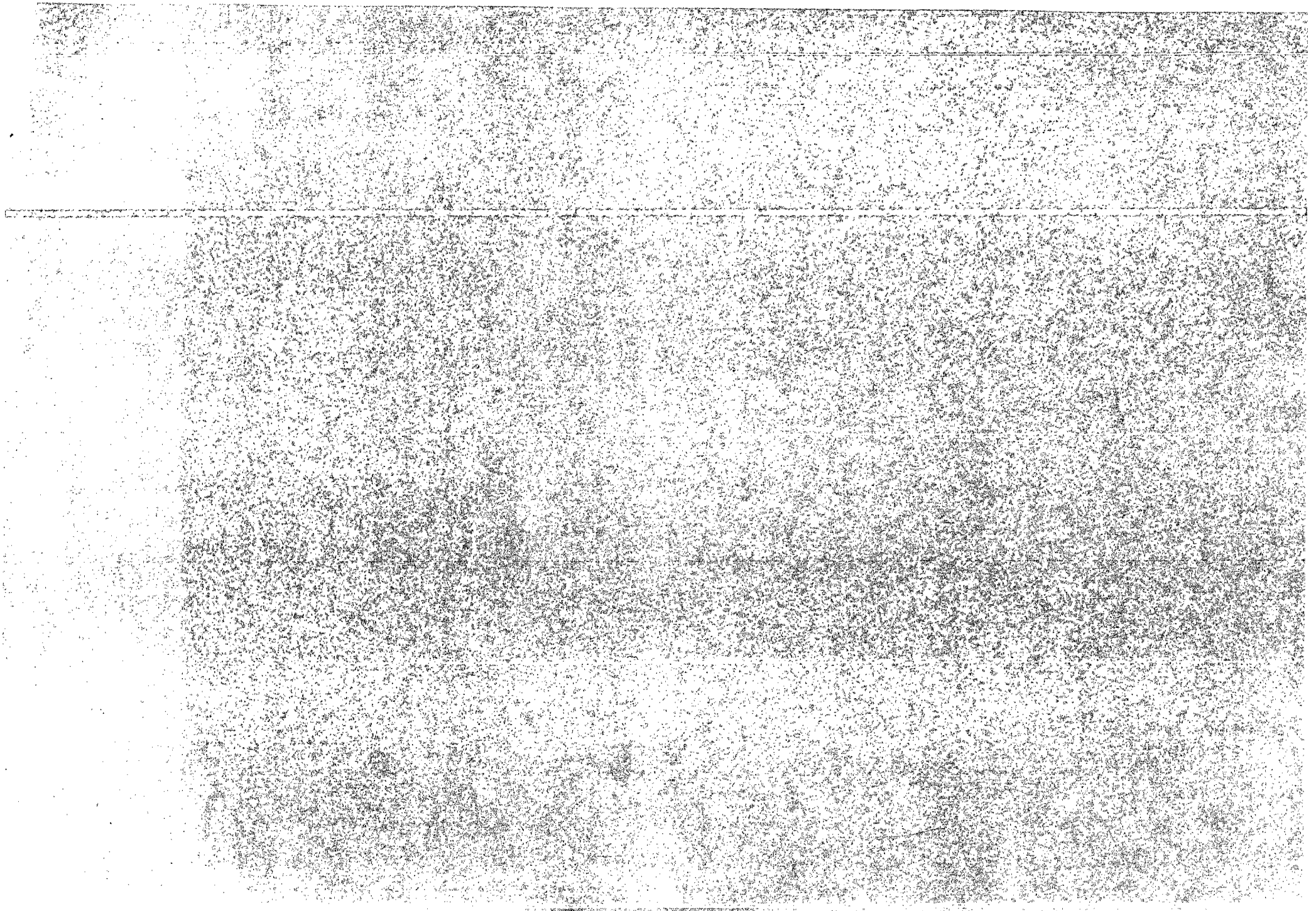
08994083/PHSA/08994G12.DWG



Evidentiary Materials

POTENTIAL PCB SOURCES TO PRSA

INDEX OF EXHIBITS ARRANGED IN ALPHABETICAL ORDER

POTENTIAL PCB SOURCES TO PRSA

INDEX OF EXHIBITS ARRANGED IN ALPHABETICAL ORDER

NO.	NAME	VOLUME
65	Keegan Landfill	IV
54	Kester Solder	IV
78	Landfill 15E	IV
12	Lucent/Western Electric (AT&T)	II
82	MacArthur Petroleum & Solvent Company/W.A.S. Terminals Corporation	IV
20	Monsanto	III
81	MSLA 1D	IV
28	New Jersey Department of Transportation	III
8	Newark Police Shooting Range	II
42	Nimco Shredding Company	IV
25	Norpak Corporation	III
23	Otillio Landfill	III
59	Otis Elevator Company	IV
71	PPG/Frey Industries	IV
45	Prentiss Drug & Chemical	IV
16	PSE&G Essex Gen. Station	III
56	PSE&G Harrison Gas Plant	IV
18	PSE&G Kearny Generating Station	III
38	Reichold Chemicals	III
41	Reusche & Co. of T. W. S. Inc.	IV
37	Ronson Metals Corp	III
22	Route 508 Expansion	III
36	SCA Chemical Service	III
1	Scientific Chemical Processing, Inc.	II
40	Sherwin Williams Co.	IV
51	Signo Trading/1140 Thomas St. Site	IV
17	Spectraserv, Inc.	III
64	Staley Chemical (A. E. Staley)	IV
43	Stanley Tools	IV
30	Sun Chemical Corp	III
15	Syncon Resins	III
68	Talon Adhesives	IV
33	Technical Coatings	III
83	Tenneco Oil Company	IV
13	Texaco Refining & Marketing	II
32	Thomasset Colors Div. Hilton Davis	III
47	Tidewater Balling	IV
4	Union Carbide	IV
63	Wagner Electric Corporation (Cooper Industries)	IV
76	Weldotron	IV
62	Westinghouse	IV
84	Whittaker Clark & Daniels	IV
72	Wilbur B. Driver Co.	IV

POTENTIAL PCB SOURCES TO PRSA

INDEX OF EXHIBITS ARRANGED FROM SOUTH TO NORTH

NO.	NAME	VOLUME
	POINT NO POINT REACH	
1	Scientific Chemical Processing, Inc.	II
2	Celanese Chem. Co. Inc.	II
3	Elan Chemical Co., Incorporated	II
4	Union Carbide	II
5	Avenue P Landfill -Newark Redevelopment & Housing Authority-A. Giordano & Sons-American Cyanamid-Revere Smelting & Refining/ Revere Urban Renewal	II
6	Castrol Oils	II
7	D & J Trucking	II
8	Newark Police Shooting Range	II
9	DuPont/Pitt-Consul/Conoco/Reilly	II
10	Ashland Chemical	II
11	Foundry Street Complex/Avon Drum/CWC/Arkansas Chem., Automatic Electroplating,etc.	II
12	Lucent/Western Electric (AT&T)	II
13	Texaco Refining & Marketing	II
77	Chemical Leaman Tank Lines	IV
14	Bayonne Barrel & Drum Company	III
78	Landfill 15E	IV
15	Syncon Resins	III
16	PSE&G Essex Gen. Station	III
17	Spectraserv, Inc.	III
18	PSE&G Kearny Generating Station	III
19	BASF Corp. Chemical Div.	III
20	Monsanto	III
84	Whittaker Clark & Daniels	IV
23	Otillio Landfill	III
	HARRISON REACH	
22	Route 508 Expansion	III
24	Conrail	III
25	Norpak Corporation	III
26	Fairmount Chemical	III
79	ECRR	IV
80	Commercial Solvents	IV
27	G&S Motor Equipment Co. Inc.	IV
28	New Jersey Department of Transportation	III
29	Alliance Chemical Company	III
30	Sun Chemical Corp	III
31	Benjamin Moore & Co.	III
32	Thomasset Colors Div. Hilton Davis	III
33	Technical Coatings	III
34	Chris Craft/Montrose	III

POTENTIAL PCB SOURCES TO PRSA

INDEX OF EXHIBITS ARRANGED FROM SOUTH TO NORTH

POTENTIAL PCB SOURCES TO PRSA

INDEX OF EXHIBITS ARRANGED FROM SOUTH TO NORTH

NO.	NAME	VOLUME
	PRPs WITH LIMITED ADDRESS INFORMATION	
73	Angelica Healthcare Group	IV
74	City Electric	IV
75	Diaprint Foils	IV
76	Weldotron	IV